

670	27364	92836	89428	61208	74982	36498	32764	81276	81276
4986	40932	70987	32123	49817	26346	81287	65491	87364	81276
721	75654	55656	12737	72727	72727	91918	63473	67867	76543
723	87629	37677	32612	53498	71296	28756	18276	98716	87654
7269	76329	74698	76857	98670	27601	56701	57601	73648	15432
591	87364	87265	96710	27630	12673	84769	28743	98127	54321
58	63298	75698	27465	87326	49876	28376	81273	98615	62345
667	87432	74328	78674	29867	32867	67867	86786	43286	43286
667	68768	68763	34234	34238	68768	62342	48273	48768	23456
936	98432	32432	86743	43286	43286	43286	43286	43286	43286
743	86743	86743	39867	32867	86743	43286	43286	43243	86743
741	86743	86743	86743	86743	86743	86743	86743	86743	43521
543	98798	98754	98754	98754	98754	29867	67543	67986	86743
76	87698	69876	87698	69876	87612	12341	34867	86798	63210
867	43298	65656	56756	56123	32143	14321	32143	14321	32143
71	32787	58765	76587	58765	76587	58765	76587	58756	76587
75476	26543	54365	36543	54365	36543	54365	36543	54365	54365

Numbers & Oddities

a.k.a. The Spooks Newsletter

Edition #194, November 2013

Editor: Ary Boender email: ary@luna.nl

Check for previous newsletters, info, sound samples and databases also:

NUMBERS & ODDITIES <http://www.numbersoddities.nl>

SPY NUMBERS ONLINE DATABASE <http://www.spynumbers.com/numbersDB>

UTILITY DXERS FORUM (UDXF) <http://www.udxf.nl>

START PAGE <http://home.luna.nl/~ary>

HF UNDERGROUND <http://www.hfunderground.com/board/>



Monitoring Times was the first foreign radio magazine that I every bought. It was very useful to me. I was only a few years active as dxer and just switched from BC to Ute stations. MT covered that area very well, so I subscribed

Now, after 33 years, it is all over. Monitoring Times and Grove are closing down. I'd like to thank Bob, Larry, Gale, Hugh, Mike, and all the others for all the great stories and interesting articles.

Grove's staff have lost their jobs due to the close down. That is bad news. I really hope that they will find a new job soon.

Take care and good luck.

After 33 years of service to the radio community, Monitoring Times will cease publication with the December, 2013 issue.

Bob Grove writes:

Judy and I are finally going to retire.

We are grateful for the dedicated efforts of our fine staff of writers for the excellent work which has kept MT alive for all these years. While we know the discontinuation of MT, with our December issue, will be a disappointment to our readers and writers alike, we realize that a combination of a down-turned economy, as well as the ready availability of free listening and technical information on the Internet, has reduced sales and subscriptions throughout the market place.

I would like to thank you personally for your knowledge, your dependability, and your professionalism in making MT the publication that is most often referred to in the radio monitoring hobby. It is a legacy that we have all inherited.

THE SPECTRUM MONITOR

Amateur, Shortwave, AM/FM/TV, WiFi, Scanning, Satellites, Vintage Radio and More

A new e-magazine covering our hobby will try to fill the gap.

I wish managing director Ken Reitz and his crew all the best with The Spectrum Monitor.

A new electronic publication, **The Spectrum Monitor**, will follow the final issue of *Monitoring Times*.

The Spectrum Monitor will debut with the January 2014 issue, on December 15, 2013, and will carry virtually all of the current *Monitoring Times* columnists and feature writers. Reitz noted, "These are the experts in all facets of radio who have helped make *MT* the best, full-spectrum magazine available and we are all excited about continuing our work for the new publication."

The Spectrum Monitor will be available only as an electronic publication in PDF format which may be read on any desktop, laptop, iPadTM, Kindle FireTM or any other device capable of opening a PDF file. Details on how to become a charter subscriber may be found at www.thespectrummonitor.com.

Larry & Gale van Horn will not join the Spectrum Monitor crew. They do have their own websites. Check them out: <http://mt-shortwave.blogspot.nl/> <http://mt-milcom.blogspot.nl/> and Gayle on twitter at <https://twitter.com/QSLRptMT>

I wish the two of you all the best.

Ary Boender

Hugh Stegman changed his website to Utility Planet <http://mt-utility.blogspot.nl/>

Don't forget to post all your logs to **UDXF** folks. The Utility DXers Forum is the heart of the utility community..... www.udxf.nl



VOICE STATIONS



E06

frequency	date	UTC	remarks
4836	7-11-2013	2030	321 790 20 16891
3526	13-11-2013	1920	218 0 distorted audio
3526	13-11-2013	1920	218 218 218 00000
3729	13-11-2013	2020	218 0
7316	17-11-2013	1120	218 0
6814	17-11-2013	1220	218 0
16200	21-11-2013	0600	507 689 112 64967
18200	21-11-2013	0700	507
4836	21-11-2013	2030	01234 90829(?) 10667 53282 90281 96542 weird transmission. 01234 repeated for several minutes; than mixes with 5FG. No end.



E07

frequency	date	UTC	remarks
E07a	5864	6-11-2013	2100 815 815 815 000
E07a	5864	13-11-2013	2100 815 815 815 000
E07	6777	14-11-2013	2110 744 744 744 000
E07	5447	14-11-2013	2130 744 744 744 000
E07a	11553	16-11-2013	0900 515 515 515 000
E07a	12153	16-11-2013	0920 515 515 515 000
E07	8153	17-11-2013	1800 184 1 135 81 73165
E07	6853	17-11-2013	1820 184 1
E07	5453	17-11-2013	1840 184 1
E07a	5864	20-11-2013	2100 815 1 39288 3631 92 1002
E07a	5164	20-11-2013	2120 815 1 39288
E07a	5146	21-11-2013	0530 188 1 39288 3631 92 61002
E07a	5846	21-11-2013	0550 188 1 39288
E07a	6846	21-11-2013	0610 188 1-39288
E07a	4564	21-11-2013	2140 815 1 39288
E07	6924	25-11-2013	2020 798 1
E07	5824	25-11-2013	2040 798 1
E07a	5146	28-11-2013	0530 188 1 35451 6711 59 37074 35768 72529
E07	5449	28-11-2013	2130 744 744 744 000
E07a	8138	29-11-2013	1610 158 158 158 000
E07a	7538	29-11-2013	1630 158 158 158 000



E11/ E11a

frequency	date	UTC	remarks
E11a	10690	5-11-2013	1400 987/10 attention 83316 71410 76664 42075 82923 35804 32325 38034 93346 77155 +
E11a	10213	5-11-2013	1810 985/10 attention 20803 04614 97478 14605 23287 03591 34696 10918 52671 55264
E11	8091	6-11-2013	1045 469/00
E11	15632	6-11-2013	1155 617/00
E11a	6923	8-11-2013	1710 957/21 attention 47445 31550 10993 08443 12207 35624 71550 44799 55563 94342 25814 18547 80210 95425 85413 35683 96417 10743 07554 88108 73385
E11a	10213	9-11-2013	1810 982/10 attention 88924 21057 50659 36921 03276 97108 62140 51084 45397 45920 attention, rpt msg, out
E11a	15632	10-11-2013	1540 255/36 attention 48657 73840 80094 03344 28391 ... 53163 83881 71839 03347 85228
E11	9446	11-11-2013	0830 641/34 attention 10651 66260 69912 27605 97666 53069 81347 59636 337797 39580 72179 74981 03811 57049 72668 12356 89977 39404 20709 85847 37183 27620 68597 67680 98814 71740 98157 53748 51666 50205 65275 64430 85529 63072 attention, rpt msg, out
E11a	10690	12-11-2013	1400 980/10 92228 94079 57540 98613 28703 28147 69580 81413 61762 19647
E11a	10213	12-11-2013	1810 981/10 60498 53915 39945 90867 07514 23199 98042 96697 51281 82531
E11	5082	14-11-2013	1730 416/00
E11	14410	15-11-2013	1128 YL numbers in EE with accent
E11a	6923	15-11-2013	1710 957/21 attention 08733 30788 77645 37366 41290 ... 69521 51982 90325 80970 07077
E11a	10690	16-11-2013	1400 981/10 attention 29179 55355 50610 37784 97068 ... 54788 57017 25683 23069 08336
E11a	10213	16-11-2013	1810 982/10 Attention 62797 07408 91859 87622 87423 34189 13172 00786 60103 15378 attention, rpt msg, out
E11	8088	18-11-2013	0823 438/00 out
E11a	14410	18-11-2013	1110 958/34 attention 81403 89930 40675 58402 12479 ... 67768 90132 74913 66445 12026
E11	15632	18-11-2013	1540 228/00
E11a	6923	18-11-2013	1710 959/25 attention 89952 85754 63316 19201 31180 ... 29586 14542 35455 27383 14406
E11a	10890	19-11-2013	1400 982/10 attention 46581 98648 14942 69928 62730 82749 13592 20590 97450 58546
E11	5082	21-11-2013	1730 410/37 attention 25765 89523 26692 03847 24959 ... 79813 19042 98904 22476 46984
E11a	14410	22-11-2013	1110 958/40 attention 18392 42525 47436 00232 07762 ... 63067 45580 84299 94264 40603
E11	15632	25-11-2013	1540 228/00
E11	7840	28-11-2013	0645 517/00
E11a	6923	29-11-2013	1710 975/20 Attention 95628 01260 96570 17013 54468 67125 71107 96762 32529 28696 86527 07766 35796 03331 96077 99038 86733 99559 84916 47782



E17z

frequency	date	UTC	remarks
9820	14-11-2013	0810	674
11170	14-11-2013	0800	674 921/6 54545
11170	28-11-2013	0800	674 982 5 21816 82997 94184 57440 10598 982 5 00000



G06

frequency	date	UTC	remarks
4515	4-11-2013	1800	564 564 564 00000
4519	14-11-2013	1830	271
4519	14-11-2013	1830	271. Traffic uncopiable
4792	29-11-2013	1930	436 436 436 00000



G11

frequency	date	UTC	remarks
6433	1-11-2013	1325	291/31 68284
4441	1-11-2013	2000	269/36 30021
6433	3-11-2013	1755	260/00
4441	3-11-2013	2000	269/36 Achtung 30021 86626 9484_ 19906 19879 ... 59370 53272 49090 75395 06296
6433	5-11-2013	1758	270/00
4441	8-11-2013	2000	262/00
6433	10-11-2013	1755	270/00
4441	10-11-2013	2000	262/00
6433	12-11-2013	1755	270/00
4441	15-11-2013	2000	262/00
4441	17-11-2013	2000	262/00
6433	22-11-2013	1325	299/00
4441	22-11-2013	2000	262/00
6433	24-11-2013	1755	279/33 Achtung 28389 34955 38167 67209 85925 ... 95741 87917 47864 14798 44732
4441	24-11-2013	2000	262/00
4441	25-11-2013	2000	262/00
6433	29-11-2013	1325	299/00
4441	29-11-2013	2000	262/00



S06

frequency	date	UTC	remarks
S06s	7150	1-11-2013	0700 196 208 5 52401
S06s	8215	1-11-2013	0710 196
S06s	11780	1-11-2013	0930 516 938/7 52401
S06s	12570	1-11-2013	0940 516
S06s	8680	2-11-2013	1200 254 980 6 46062
S06s	8260	2-11-2013	1210 254

	frequency	date	UTC	remarks
S06	4040	2-11-2013	2000	319 319 319 00000
S06	4784	2-11-2013	2030	857 00000
S06	3569	2-11-2013	2100	319 00000
S06	4017	2-11-2013	2130	857 00000
S06s	9170	5-11-2013	1510	537 982 6 39534 17228 15636 47891 23247 17099 982 6 00000
S06s	9770	11-11-2013	0840	371 904 5 33796 13577 74526 46647 79302 904 5 00000
S06	6830	11-11-2013	2015	
S06s	9170	12-11-2013	1510	537 982 6 39534 17228 15636 47891 23247 17099 982 6 00000
S06s	11760	14-11-2013	0930	516 987 5 33796 13578 47526 46247 25616 987 5 00000
S06s	12155	14-11-2013	1200	425 896 7 88146
S06s	10920	14-11-2013	1210	425
S06	3838	14-11-2013	1905	349 349 349 00000
S06s	8813	15-11-2013	0610	493 801 5 83981 24935 58604 71428 03092 801 5 00000
S06s	8215	15-11-2013	0710	196 802 5 30485 96632 62537 53317 06675 802 5 00000
S06s	5810	15-11-2013	0800	278 961 5 83280
S06s	6770	15-11-2013	0810	278
S06	3834	16-11-2013	1935	426 00000
S06s	13470	17-11-2013	0630	524 981 6 57634 80956 23150 67453 89672 45412 981 6 00000
S06s	5410	21-11-2013	0900	624 538 7 10544
S06s	12952	21-11-2013	0900	167 923 5 75155
S06s	6770	21-11-2013	0910	624
S06s	13565	21-11-2013	0910	167
S06s	8812	21-11-2013	0930	314
S06s	9540	21-11-2013	0940	314
S06	3192	21-11-2013	1900	349 00000
S06	7387	23-11-2013	1600	764 00000
S06	3834	23-11-2013	1905	426 426 426 00000
S06	3834	23-11-2013	1935	426 0
S06s	8420	25-11-2013	1300	831 592 6 26734
S06s	10635	25-11-2013	1310	831
S06	3192	25-11-2013	1900	349 00000
S06	8180	25-11-2013	1915	805 00000
S06	6830	25-11-2013	2015	805 00000
S06s	5250	26-11-2013	0700	374 960 5 88620
S06s	6320	26-11-2013	0710	374
S06s	6440	26-11-2013	1000	893 401 5 29245
S06s	5660	26-11-2013	1010	893
S06s	6845	26-11-2013	1500	537 821 6 57214
S06s	9170	26-11-2013	1510	537
S06	15721	27-11-2013	0411	i.p.
S06s	7335	27-11-2013	0830	745 209 6 10597
S06s	9260	27-11-2013	0840	328 410 5 33796
S06s	11830	27-11-2013	0840	745
S06s	11415	27-11-2013	0850	328
S06s	12365	27-11-2013	1000	729 803/5 88620
S06s	14280	27-11-2013	1010	729
S06s	4580	27-11-2013	1230	967
S06s	6420	27-11-2013	1240	967 203 5 56024



S11a

frequency	date	UTC	remarks
7504	1-11-2013	0816	585/00
7504	1-11-2013	0915	484/00
9610	8-11-2013	1020	425/30
12530	4-11-2013	1015	471/36



S28 - The Buzzer

Mode: USB
Frequency: 4625 kHz

There was probably more activity than logged and reported here.

07-11, 1333 UTC MDZhB 68 478 SIZAL 47 26 99 14 Priyom
25-11, 1000 UTC MDZhB 05 307 VIVACH 24 85 65 45



V07

frequency	date	UTC	remarks
18074	3-11-2013	0100	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000
15874	3-11-2013	0120	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000
14374	3-11-2013	0140	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000
18074	10-11-2013	0100	883 883 883 000 000
15874	10-11-2013	0120	883 883 883 000 000
18074	17-11-2013	0100	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000
15874	17-11-2013	0120	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000
14374	17-11-2013	0140	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000
18074	24-11-2013	0100	883 883 883 000
15874	24-11-2013	0120	883 883 883 000

I have uploaded 2 recordings made by Daniel to the N&O website.

18074/15874/14374 kHz, 03-11, 0100/0120/0140 UTC:

883 883 883 1 (X5) 133 53 (X2)
94293 54937 31318 54275 81128 37933 39939 15022 51507 33743
39983 79925 05279 50902 73795 03389 01231 35851 44422 93817
33973 05891 94337 39875 98377 40708 75029 37033 05371 15183
72715 98893 87833 25195 03313 39329 31339 34330 21831 99573
17780 39730 38359 00377 43331 72551 40281 92824 28953 54119
37881 99908 83033
000 000

18074/15864/14374 kHz, 17-11, 0100/0120/0140 UTC:

883 883 883 1 (x5) 251 67 (x2)
42313 29100 99353 09489 13959 23347 29184 71853 42082 92074
84241 72577 58117 73307 14939 17083 80337 22583 98343 37741
99573 22128 35308 40871 41351 11241 18739 29405 79799 50050
80743 43379 18195 43749 18575 09198 48788 42905 19123 85529
38289 90804 93031 30830 47723 39171 33134 07119 29138 00872
70580 93824 23331 43954 33571 13793 20112 34375 23833 12831
03884 97738 98872 08554 32290 31532 80375
000 000



V13 - New Star Broadcasting Station

星星廣播電台 Xīngxīng guǎngbò diàntái

Current schedules

Station #3: 8300 kHz, 0500 and 0600 UTC

Station #4: 9522 kHz, 0700 and 0800 UTC

Station #4: 8300 kHz, 1200 and 1300 UTC



V24

V24 is not often reported these days. Token noticed the same and wrote the following report. Thanks for that T!!!

I have only been monitoring casually lately. I periodically tune to one of the Asian numbers stations, just to see if they are still chugging along. Last month, early October, 2013, I noticed I was not hearing much from V24 or M94. My assumption was that the schedule I built up at the beginning of the year was just not accurate anymore, and a new schedule was needed. So I started to monitor closely, and build up a new schedule to publish.

What I found is that V24 has almost ceased operation, and no M94 transmissions have been sent, that I am aware of, in over 6 weeks.

Examples of activity levels.

In May of 2013 I heard 62 V24 transmissions, and 4 M94 transmissions. In the last 6 weeks, the second half of October combined with all of November, I have heard eight V24 transmissions and no M94 transmissions at all, in the past I would have expected there to be on the order of 90 V24 transmissions and 6 or more M94's. In that 6+ weeks (part of Oct and all of Nov) monitored every known V24 and M94 frequency, past and present, 24 hours a day. I also looked for new frequencies, and so far found no indication of any in use.

It appears that V24 / M94 has either greatly reduced operations or it has moved a large part of its operations to frequencies / times I have not been able to locate.

V24 and M94 receptions, 16 October to 29 November, 2013.

V24 6310 kHz 05/11/2013 1430 UTC
V24 6310 kHz 06/11/2013 1430 UTC
V24 6310 kHz 06/11/2013 1530 UTC
V24 4900 kHz 08/11/2013 1300 UTC

V24 4900 kHz 12/11/2013 1300 UTC
V24 4900 kHz 13/11/2013 1300 UTC
V24 6310 kHz 15/11/2013 1430 UTC
V24 6310 kHz 16/11/2013 1430 UTC

T! Mojave Desert, California, USA



VC01 - Chinese Robot Chinese Air Defense

Modes: USB and LSB

The station changes its frequencies frequently. Known frequencies:

3036, 3749, 3837, 4075, 4175, 4258, 4343, 4410, 4422, 4427, 4480, 4530, 4580, 4726.5, 5195, 5232, 5288, 5303, 5328, 5330, 5393, 5592, 5700, 5742, 5799, 5802, 5832, 5892, 6209, 6479, 6771, 6840, 6858, 6860, 6949, 6960, 7090, 7351, 7608, 7684, 7726, 7739, 7744, 7756, 7770, 7792, 7864, 7865, 7880, 7890, 7924, 7938, 8000, 8025, 8170, 9000, 9169, 9192, 9290, 9340, 10508, 17392 kHz.

frequency	date	UTC
8715	9-9-2013	1400
8715	11-9-2013	1315
5799	1-11-2013	1440
5799	4-11-2013	1309
8715	12-11-2013	0700
8715	12-11-2013	0734
17392	15-11-2013	0342
5799	26-11-2013	1209
4175	27-11-2013	1345



VC03 Chinese Air Defense network

8300 kHz, 25-11, 0605 UTC, i.p. 4FG messages. I haven't heard that one for quite some time.



Rohde & Schwarz ESM500/EZP



MX Russian Military beacons

Current cluster frequencies:

3594, 4558, 5154, 7039, 8495, 10872, 13528, 16332, 20048 kHz

Other frequencies:

L 6917.5, 8497.8 kHz

V 3658, 4150, 6809, 6928, 7027.5 kHz

R 5466 kHz (seldom reported these days)

W 5835, 8112, 8162 kHz (Air Force)

Cluster beacon slots:

.7 "D", Sevastopol

.8 "P", Kaliningrad

.9 "S", Severomorsk

.0 "C", Moscow

.1 "A", Astrakhan

.2 "F", Vladivostok

.3 "K", Petropavlovsk Kamchatskiy

.4 "M", Magadan

Channel markers:

V : 4508, 5055.5, 6928



M01

	frequency	date	UTC	remarks
M01b	3520	4-11-2013	1910	853 _8_ 34 93228 __515 __38_ 641__ (becomes unreadable). 2435 kHz freq QRMd
M01b	3205	4-11-2013	2015	375 783 34 = = 9 _248 26156 _7381 32641 63552 ... _3276 5_909 90_6_ 00564 67879 = = 783 34 000
M01	5320	5-11-2013	1800	197 221 30 91840 72867 25972 73969 09889 ... (remainder missed)
M01b	2655	8-11-2013	2002	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //3197
M01b	3197	8-11-2013	2002	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //2655
M01b	2405	8-11-2013	2110	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //3180
M01b	3180	8-11-2013	2110	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //2405
M01	5465	10-11-2013	0700	
M01	5320	14-11-2013	1800	197 181 30 20442 85318 87329 48793 84336 ... 19452 20884 26751 42290 75733 181 30 000
M01b	3180	15-11-2013	2110	610 ??? 33 = 02813
M01	5810	16-11-2013	1500	197 = = 30 30 56447 19260 25064 60624 06011 ... 72460 28614 28197 43017 81237 = = 453 30 30 000
M01	5465	17-11-2013	0700	
M01b	3520	18-11-2013	1910	
M01b	3205	18-11-2013	2015	375 ... Unreadable. Nothing on 2427 kHz.
M01	5320	19-11-2013	1810	(In progress) ... 79224 95862 98840 37078 34266 = = 345 30 000
M01b	2655	22-11-2013	2001	866 339 339 33 33 = = 02813 05411 __471 3274_ 6213 ... Mostly uncopiable. Noth- ing on 3197 kHz
M01	5810	23-11-2013	1500	197
M01	5465	24-11-2013	0700	197 ## 30 #4626
M01b	3519	25-11-2013	1910	853 389 33 = 02813

frequency	date	UTC	remarks
M01b	2427	25-11-2013	2015 375 389 33 = 02813 //3205
M01b	3205	25-11-2013	2015 375 389 33 = 02813 //2427
M01b	3205	25-11-2013	2015 375 389 33 = = 02813 25471 32740 61143 7902_ ... 11_52 4179_ 18158 98282 99417 389 33 ...
M01	4490	26-11-2013	2000 197 012 30 20690
M01b	2470	28-11-2013	1932 910 389 33 = 02813 //3545
M01b	3545	28-11-2013	1932 910 389 33 = 02813 //2470
M01b	2485	28-11-2013	2042 362 389 33 = 02813 //3160
M01b	3160	28-11-2013	2042 389 33 = = 02813 25471 32740 61143 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000
M01b	2655	29-11-2013	2002 866 389 33 = = 02813 25471 32740 61143 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000. Nothing on 3179 kHz
M01b	3197	29-11-2013	2002 866 389 33 = 02813 //2655
M01b	2405	29-11-2013	2110 610 389 33 = = 02813 25471 32740 61143 87902 ... Repeat of msg for 866 20:02. Nil hrd 3180 kHz. 1100 Hz note



M03

frequency	date	UTC	remarks
4828	3-11-2013	1320	437/00
5358	5-11-2013	1535	798/00
4828	10-11-2013	1320	437/00
5358	12-11-2013	1535	798/00
4828	14-11-2013	1115	650/00
13911	15-11-2013	1420	879/00
5358	16-11-2013	1535	798/00
5356	23-11-2013	1535	798/00
5358	26-11-2013	1535	792/37 15148



M08a

Dirección General de Inteligencia

See also the "Cuban diplomatic" section.

frequency	date	UTC	remarks
7554	21-11-2013	2018	Cuban cut nbrs
7554	28-11-2013	1956	Cuban cut nbrs GUTWA TIUIA AAIAN
8096	20-11-2013	1440	Cuban cut nbrs
8096	22-11-2013	1402	Cuban cut nbrs in CW
8096	25-11-2013	1419	Cuban cut nbrs
10715	27-11-2013	2201	RDADE GUGRA GTGG mixed with HM01



M12

frequency	date	UTC	remarks
9162	2-11-2013	1310	104 1 8595 129 58821
8062	2-11-2013	1330	104 1 8595 129 58821
4617	4-11-2013	0530	638 638 638 000
5317	4-11-2013	0550	638 638 638 000
9187	4-11-2013	1300	106 1 4632 287 11293 15464 32405 35506 69271 ... 41257 55322 79015 06497 94409 000 000
8057	4-11-2013	1325	106 1 4632 287 11293
7697	4-11-2013	1350	106 1 4632 287 11293
11435	4-11-2013	1600	938 1 8729 102 12807
10598	4-11-2013	1620	938 1 8729 102 12807
9327	4-11-2013	1640	938 1 8729 102 12807
9176	4-11-2013	1700	257 1 5005 72 95149
7931	4-11-2013	1720	257 1 5005 72 95149
7931	4-11-2013	1720	256 1 5005 72 95149 36442 46564 33628 13850 ...83487 40572 95031 30384 89344 000 000
6904	4-11-2013	1740	257 1 5005 72 95149
9176	4-11-2013	1800	257 1 6549 60 08123
7931	4-11-2013	1820	257 1 6549 60 08123
6904	4-11-2013	1840	257 1 6549 60 08123
9176	4-11-2013	1900	257 1 6885 105 70888
7931	4-11-2013	1920	257 1 6885 105 70888
6904	4-11-2013	1940	257 1 6885 105 70888
14793	5-11-2013	0104	792 792 792 1 then into 5FGs
10343	5-11-2013	1830	124 1 7820 57 86384 45049 72402 29193 52829 ... 23494 05589 95514 87168 58198 000 000
9264	5-11-2013	1850	124 1 7820 57 86384
8116	5-11-2013	1910	124 1 7820 57 86384
8112	6-11-2013	1500	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000
7552	6-11-2013	1520	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000
6792	6-11-2013	1540	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000
8047	6-11-2013	1700	463 1 7975 97 78795 74343 24316 77216 57919 ... 45954 23382 64306 48241 19654 000 000
6802	6-11-2013	1720	463 1 7975 97 78795
5788	6-11-2013	1740	463 1 7975 97 78795
11435	6-11-2013	1830	938 1 2581 52 84390
10598	6-11-2013	1850	938 1 2581 52 84390
5429	6-11-2013	2200	460 460 460 000
4629	6-11-2013	2220	460 460 460 000
5884	7-11-2013	0730	888 888 888 000
6884	7-11-2013	0730	888 888 888 000
9162	7-11-2013	1310	104 104 104 000
8062	7-11-2013	1330	104 104 104 000
13386	7-11-2013	1600	725 1 4818 101 36461
12189	7-11-2013	1620	725 1 4818 101 36461

frequency	date	UTC	remarks
11491	7-11-2013	1640	725 1 4818 101 36461
9176	7-11-2013	1700	257 1 8737 79 44962
10343	7-11-2013	1700	124 1 3969 70 72956
7931	7-11-2013	1720	257 1 8737 79 44962
9264	7-11-2013	1720	124 1 3969 70 72956
6904	7-11-2013	1740	257 1 8737 79 44962
8116	7-11-2013	1740	124 1 3969 70 72956
10343	7-11-2013	1800	124 1 8326 110 81544
9264	7-11-2013	1820	124 1 8326 110 81544
8116	7-11-2013	1840	124 1 8326 110 81544
9176	7-11-2013	1900	257 1 1663 65 08923
7931	7-11-2013	1920	257 1 1663 65 08923
6904	7-11-2013	1940	257 1 1663 65 08923
9162	9-11-2013	1310	104 104 104 000
8062	9-11-2013	1330	104 104 104 000
4617	11-11-2013	0530	638 638 638 000
5317	11-11-2013	0550	638 638 638 000
9187	11-11-2013	1300	106 1 4227 179 78580
8057	11-11-2013	1320	106 1 4227 179 78580
7697	11-11-2013	1340	106 1 4227 179 78580
11435	11-11-2013	1600	938 1 7144 113 63712
10598	11-11-2013	1620	938 1 7144 113 63712
9327	11-11-2013	1640	938 1 7144 113 63712
9176	11-11-2013	1700	257 1 2913 74 67153
7931	11-11-2013	1720	257 1 2913 74 67153
6904	11-11-2013	1740	257 1 2913 74 67153
9176	11-11-2013	1800	257 1 7733 69 39549
7931	11-11-2013	1820	257 1 7733 69 39549
6904	11-11-2013	1840	257 1 7733 69 39549
9176	11-11-2013	1900	257 1 7911 117 30493
7931	11-11-2013	1920	257 1 7911 117 30493
6823	11-11-2013	1940	
6904	11-11-2013	1940	257 1 7911 117 30493
10343	12-11-2013	1830	124 1 1339 50 70717
9264	12-11-2013	1850	124 1 1339 50 70717 55113 31885 45193 29354 ... 38709 50283 53832 32942 08956 000 000
8116	12-11-2013	1910	124 1 1339 50 70717
8047	13-11-2013	1700	463 1 7433 62 38419
6802	13-11-2013	1720	463 1 7433 62 38419 24096 83362 39167 96199 ... 08321 66403 13678 32125 21522 000 000. '4' in callup sometimes sent as 'V'
5788	13-11-2013	1740	463 1 7433 62 38419
11435	13-11-2013	1830	938 1 9804 65 49825
10598	13-11-2013	1850	938 1 9804 65 49825
9327	13-11-2013	1910	938 1 9804 65 49825
5429	13-11-2013	2200	460 460 460 000
4629	13-11-2013	2220	460 460 460 000
5884	14-11-2013	0730	888 888 888 000
6884	14-11-2013	0750	888 888 888 000
9162	14-11-2013	1310	104 104 104 000
8062	14-11-2013	1330	104 104 104 000
13386	14-11-2013	1600	725 1 5186 109 90831
12189	14-11-2013	1620	725 1 5186 109 90831
11491	14-11-2013	1640	725 1 5186 109 90831

frequency	date	UTC	remarks
9176	14-11-2013	1700	257 1 2707 91 51174 61715 18323 52115 38361 ... 10927 07939 86529 35809 81671 000 000
10343	14-11-2013	1700	124 1 9306 76 40375 99747 02723 47687 97765 ... 27293 09746 52579 08044 74099 000 000
7931	14-11-2013	1720	257 1 2707 91 51174
9264	14-11-2013	1720	124 1 9306 76 40375
6904	14-11-2013	1740	257 1 2707 91 51174
8116	14-11-2013	1740	124 1 9306 76 40375
10343	14-11-2013	1800	124 1 4905 102 18234
9264	14-11-2013	1820	124 1 4905 102 18234
8116	14-11-2013	1840	124 1 4905 102 18234
9176	14-11-2013	1900	257 1 1263 44 05275
7931	14-11-2013	1920	257 1 1263 44 05275
6904	14-11-2013	1940	257 1 1263 44 05275
9162	16-11-2013	1310	104 104 104 000
15969	17-11-2013	1010	941 0
17479	17-11-2013	1030	941 0
9187	18-11-2013	1300	106 2 186 123 55369 23657 45686 64547 95475 ... 31225 80529 20335 90439 52365. 106 2 427 179 78580 24417 11969 26734 12987 ...
7931	18-11-2013	1720	257 1 44699 07797 38619 99800 38072 ... 81741 31547 33756 94884 89934 000 000
7931	18-11-2013	1920	
8116	19-11-2013	1910	124 1 2718 70 12611 _814_ 61_84 742_6 ____45 (uncopiable - flutter fading)
4030	20-11-2013	2245	i.p. ... 67798 97587 49865 20123 35725 ... 94532 000 000
9176	21-11-2013	1700	257 1 6801 55 14770 03157 22623 50403 26549 ... 64435 82660 12869 06098 14038 000 000
8116	21-11-2013	1740	124 1 52775 25417 72651 42500 06840 ... 76392 67757 91880 56550 56613 000 000
9162	23-11-2013	1310	104 104 104 000
8062	23-11-2013	1330	104 104 104 000
4617	25-11-2013	0530	638 638 638 000
5317	25-11-2013	0550	638 638 638 000
9187	25-11-2013	1300	106 1
9187	25-11-2013	1300	106 1 68219 92944 10457 13089 66707 ... 41296 23511 23137 62936 25038 83366 000 000
8057	25-11-2013	1330	106 1 7345 157 68219
7697	25-11-2013	1340	106 1
7697	25-11-2013	1350	106 1 7345 157 68219
11435	25-11-2013	1600	938 1 3088 112 06109
10598	25-11-2013	1620	938 1 3088 112 06109
9327	25-11-2013	1640	938 1 3088 112 06109
9176	25-11-2013	1700	257 1 8205 70 46216
7931	25-11-2013	1720	257 1 8205 70 46216 69151 72954 71545 74360 ... 71786 59449 62952 26895 15979 000 000
6904	25-11-2013	1740	257 1 8205 70 46216
9176	25-11-2013	1800	257 1 9075 65 95737
7931	25-11-2013	1820	257 1 9075 65 95737
6904	25-11-2013	1840	257 1 9075 65 95737
9176	25-11-2013	1900	257 1 5904 112 47598
7931	25-11-2013	1920	257 1 5904 112 47598 72410 42407 83689 31033 ... 92752 95043 12577 79010 19073 000 000
6904	25-11-2013	1940	257 1 5904 112 47598
8112	27-11-2013	1500	106 1 7345 157 68219
7552	27-11-2013	1520	106 1 7345 157 68219
7552	27-11-2013	1520	106 1
6752	27-11-2013	1540	106 1 7345 157 68219

frequency	date	UTC	remarks
6792	27-11-2013	1540	106 1
8047	27-11-2013	1700	463 1 4831 57 33413
6802	27-11-2013	1720	463 1 4831 57 33413
5789	27-11-2013	1741	463 463 463 1 4831 57 4831 57 33413 49197 14210 72393 19777 000 000
5429	27-11-2013	2200	460 460 460 000
4629	27-11-2013	2220	460 460 460 000
5884	28-11-2013	0730	
15969	28-11-2013	1010	941 1 9511 93 03697
17479	28-11-2013	1030	941 1 9511 93 03697
18169	28-11-2013	1050	941 1 9511 93 03697
14721	28-11-2013	1239	262 for 5 minutes then 5FGs
9162	28-11-2013	1310	104 1 5518 113 03471
8062	28-11-2013	1330	104 1 5518 113 03471
7462	28-11-2013	1350	104 1 5518 113 03471
13386	28-11-2013	1600	725 1 2168 115 70899
12189	28-11-2013	1620	725 1 2168 115 70899
11491	28-11-2013	1640	725 1 2168 115 70899
6904	28-11-2013	1700	257 1 6255 98 59369
7931	28-11-2013	1700	257 1 6255 98 59369
9176	28-11-2013	1700	257 1 6255 98 59369
10343	28-11-2013	1700	124 1 ...
9264	28-11-2013	1720	124 1 8633 80 33429
8116	28-11-2013	1740	124 1 8633 80 33429
10343	28-11-2013	1800	124 1 ...
9264	28-11-2013	1820	124 1 362 97 35084
8116	28-11-2013	1840	124 1 362 97 35084
9176	28-11-2013	1900	257 1 ...
7931	28-11-2013	1920	257 1 7837 61 95512
6904	28-11-2013	1940	257 1 7837 61 95512



M14

4636 kHz, 12-11, 1820 UTC. Note that the “=” separation mark is missing in this message.

186 186 247 247 020 020
12783 12783 94170 94170 32036 32036 69647 69647 84159 84159
06978 46978 39858 39858 14721 14721 26803 26803 54710 54710
52365 52365 80256 80256 65427 65427 54977 54977 19632 19632
74237 74237 76867 76867 72359 72359 19264 19264 82569 82569
247 247 020 020 00000

frequency	date	UTC	remarks
4636	12-11-2013	1820	186 247 247 020 020 11__3 12783 94170 32036 ... 74237 76867 72359 19264 82569 247 247 020 020 00000
4761	13-11-2013	1920	748 365 20 48975
4761	13-11-2013	1920	365 020 48975 58543 92326 97857 80598 ... 21024 34754 33051 60145 43516 365 020 00000
5430	16-11-2013	0800	
5430	23-11-2013	0800	



M23

8030 kHz, 11-11, 1510 UTC: 246 246 246 ...



M24

7377 kHz, 13-11, 1705 UTC: i.p. 16286 16286 28583 28583 94874 94874 39178 39178109 109 00000



M51 / FAV22 **8ème Régiment de** **Transmission**

frequency	date	UTC	remarks
8016	4-11-2013	1609	BT NR 80 N 04 17:09:11 1985 = YUBNQ JPDDL JHWYK ZBZT (as sent) HSLPC ...
8016	5-11-2013	1346	BT NR 34 N 05 14:46:27 1985 BT LNBOZ JQEP UIRER TBBYU WVEIG HQZEC ...
6825	5-11-2013	1258	FAV22: French DIRISI Morse Practice Stn, Vernon. "...les francais ne savent pas encore le faire. sur six courses, on repart quand ..." CQ de FAV22 VA



M89 **Chinese military**

Stations and strings:

VVV Q2M Q2M Q2M DE NYZ NYZ
V 7NPE 7NPE 7NPE DE QV5B QV5B
V DKG6 DKG6 DKG6 DE 3A7D 3A7D
V RXP7 RXP7 RXP7 DE CZT2 CZT2
V H2FL H2FL H2FL DE DRV8 DRV8
V DP9J DP9J DP9J DE CQ CQ
V MW3D MW3D MW3D DE 2SLC 2SLC
V YUQW YUQW YUOQ DE ASDF ASDF
V 7NPE 7NPE 7NPE DE Q45B Q45B *)

L2SW DE M9NB
YOSY DE WIJA
BCAP DE ORL2
F9AG DE JCY9
WGA7 DE SQRM
WGA7 DE VRP4
8WS1 DE FBB8
FOVQ
.... DE 443T
.... DE 4HP

Note the interesting log on the 13th
Same kind of traffic as on October 10th

JPL supplied a very large amount of logs. The messages are mentioned below and the logs can be found in the Logs Section.

*) sent during a couple of days

5588 kHz, 01-11, 1445 UTC:

4 5 5
U V EEEE R Y Y
Y Y M
P X E E T X
Z U 3 N D T 7 A U
A37N A A A A3D7 N5A
AA AA AAAAA AAAAAAAAAA AAAAA AAAAAAAAAAAAAA
AAAA A AA T
T A A
AA 37 U 3 3 A 7D7U EEEEE AAAAAA
AAA AAUAAANAA AA
AANNNATEEEEEAAAAAANNDDAUUA34444377655
55 4 37DA UEE AU34 567D DNN7 7
U37D 2EEEEEE 333AA2EEEE UU7D D77U 344EEEE 555 AAAA7 33AU
457A ADNA NANA
NNNN NNNA AAAA AN 7D (Cont'd)

3330 kHz, 04-11, 1540 UTC

63AN UNA4 67U6 (Cont'd)
AR (1545z - Silent)

5485 kHz, 04-11, 1301UTC

V YUQW YUQW YUOQ DE ASDF ASDF
HR SVC GA (1301z)
NR 24 2100 RMKS 2478 TO 0103/2474 =
COMM/2145/LZ138A8/.475.0103 AR
AGN NR 24 2 EEE
NR 24 2100 RMKS 2478 TO 0103/2474 =
COMM/..45/LZ1.8A8/24./0103 AR
HR WRK NR 32 QSL ? (1303z)
V YUQW YUQW YUOQ DE ASDF ASDF

7788 kHz, 09-11, 1204 UTC: In traffic, hand sent

4563 UD34 TDUU (Cont'd)
77777777
MMMMM 7777 00 0 00 00 00 00 2 2 0 M 73U3 73U73U 2 O222
2222 UT EEE
TTNN NMT22 3 EEE
M777MT 777777 77777777 77
VV U3T 333 M.. 7TM TMMAA.MTTTTT T O77777
77.TTN3U53 AN TTA. TTUT T3A. UUUU
VV VV V5 V5
7.MT.3.5. 535.4TA4777777777777TTTTTTTTT
VV VV VV VVV
456D 77777774466 666666AU3
VUSEEE33343333..677777777774A4A346
3UU6 DDDSUUU..TU??I?????I?UT5TTN 3U53AN E
TTATTUTT..U..S3.3333 I33
S33UU6TTN3U53ANTTAI ?TTUTT3777733U735.

3642//5230 kHz, 13-11, 1832 UTC:

576A5N4T D56A 3N57 3D.. (Cont'd)
AR

6666 kHz, 04-11, 0331 UTC

29 CK 95 55 1023 0934 RMKS 74.0 TO 7149 AR
= =
DUN7 53A4 6T73 5T4D NAU6 NT7D 4U56 A3T4 A5NU 6N.. (Cont'd)
R EEEE 00 = =
7G NR 0076555 0924 098 7
NR 007 65 55 0924 0081 RMKS 0100 0912 K
VV 753/4ADN TA36 T344.A7D.. (Cont'd)
III (0343z - Silent)

4225 kHz, 05-11, 1048 UTC

VV V
TC1 UGT COMM = 9349/1915/Z67/5475 AR
TC1 UGT COMM = 9349/1915/Z67/5475 AR
TC2 UGT COMM = 9606/2120/Z69/5475 AR
TC2 UGT COMM = 9606/2120/Z69/5475 AR
TC3 UGT COMM = 9602/2200/G31/5479 AR
TC3 UGT COMM = 9602/2200EEE
TC3 UGT COMM = 9602/2200/G31/5479 AR
TC4 UGT COMM = 9955/0055/Z63/5475 AR
TC4 UGT COMM = 9955/0055/Z63/5475 AR
TC5 02/CCK 25 37 1105 0440 RMKS 5475 TO
7375/9998/5275/5165/9701/ AR EEEE
TC5 02/CCK 25 37 1105 0440 RMKS 5475 TO
7375/9998/5275/5165/9701/9185/9168/9566 AR
TC6 UGT COMM = 9329/0645/Z67/5475 AR
TC6 UGT COMM = 9329/0645/Z67/5475 AR
TC7 UGT COMM M = 9512/0850/G31/5479 AR
TC8U GT COMM = 9600/0915/Z6.EEEE EE
TC8 U EEEE
TC8 UGT COMM = 9600/0915/Z69/5475 AR
TC9 UGT COMM = 9955/A515/G30/5475 AR
TC10 UGT COMM = 9602/1600/EEE AGN
TC10 UGT COMM = 9602C EEEE
TC10 UGT COMM = 9602/1600 EEEEE EEE
TC10 UGT COMM = 9602/1600/G31/5479 AR 910
V 7NPE 7NPE 7NPE DE Q45B Q45B

6666 kHz, 04-11, 0331 UTC

VV YOSY DE WIJA

5805 kHz, 09-11, 1249 UTC: In traffic, machine sent

N46U 7763 TUU5 A4.. (Cont'd)
AR (1251z silent)

8580 kHz, 12-11, 1129 UTC:

3T7D ... (Cont'd)
W K N
HW .. 3 K
QSL ? K

7602 kHz, 10-11, 1326 UTC:

= COMM/ 223./REZ443.4 K EEE (In tfc – handsent)
= COMM/2230/LZ44364 K EEEE
= COMM/2230/LZ4436U/63.4..573 AR
QSL ? HR WK NR 33

6666 kHz, 13-11, 1210 UTC:

VV = BD3T BT7U 5... (Cont'd)
???? 75 NU FM 3 = 3EE IBS NR B9Y BOY BOY ??
= SK IB SB SB USB USB (2nd station on freq)
NC UNC UNC
HOAE EEEE WHO ARE YOU ?
E WHO ARE YOU ?
.. K
AGN K
.SB
R WHT H5WHO. EEEE R WHO ARE YOU ?
IKKK
R WHO ARE YOU ?
K KK
VV = 6M3TN. A
IM WSL .. K
VV = UN73 DTA4 ... (Cont'd – 1215z – 2nd station also transmitting)
AR (1225z)
MS N..Z MSZ MSZ
05 05 05 VV ...
05 05 05
VV = 0KZ SQM 4 SQIL T
NOLA R FFF TDX FOW YNZ IBERTPIJ OULKP GUWQXDSKTS
..? K
VV KZ..H QSF TPVCROLAYADN..WYNZSBEI RTPIJULKPGUWQXDS
KTSJFVER.NZO UGYP
JHFNLFRS CIOKVYDMPDLUCSY (cont'd)
QRI .. ? HFAY GNBRJS QICEMAT ? .. (Cont'd)

6666 kHz, 16-11, 1908 UTC:

RMKS 1296 TO 6426 K
R RMKS 1296 TO 6426 K
VVV LL NR 01/EX 0305 RMKS 6420 AGN
FF NR 01/EX 0305 RMKS 6426 TO 1296 =
ABCD2/DCBA0 AR K (1910z)
FF NR 01/EX 0305 RMKS 642 RMKS 6426
FF NR 01/EX 0305 RMKS 6426 TO 1296 =
ABCD2/DCBA0 AR K (1912z) (Last character is ZERO)
555 56 666 664444 43377 3337777733333333
777 700 (Silent 1914z)

3642//7602 kHz, 16-11, 1601 UTC:

UGT COMM msg
QSL ? HR WK NR 33 K

7581 kHz, 20-11, 0321 UTC, i.p.

AGN
4105/EX .122 RMKS 452.71. TO 4..37.8 =
YQ5/ZVO AR
QSL? K
R U E GA K
QSL 0126 K
5. 5 5 N5R.S MSG NR 41 06 CK .01 0 10.20 RMKS ..2.10 TO 452...
= fading very badly
QSL?

5566 kHz, 12-11, 2022 UTC:

R UR 7G GA MSG NR 002 CK 99 66 1113 0..2 RMKS 061. TO 1.39 =
54DA UN36 6U4A A5N7 T4.. 9 (Cont'd)
AR QSL? K
R RPT 5.. K
HR QRJ U. 06 K
R AS
VV .7 DE OS.W K
BCA7 DE ... 2 K
VV BCA7 DE 0R.2 K
VV BCA7 DE 0RL2 K (Callsign is ZERO RL2)
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
VV BCA7 DE 0RL2 K
R QSA 2 QSL ? K
R AS (2039z silent)

9206 kHz, 10-11, 0337 UTC:

A7N4 D5AN AU53 36ND (Cont'd)
AR QSL ? HR WK NR 370 HR CQ NIL K EEEEE
NR CQ NIL SK (0341z silent)

5519 kHz, 12-11, 2048 UTC:

U6DA DT43 34T3 5U7U
AR
QSL? K
R RPT .42 .3.63 AN K
R QSL 0430 K
R HR WK NR 190 K
R HR NIL SK

5460 kHz, 16-11, 1105 UTC, In traffic, machine sent

353D 56NT 67NA 475T (Cont'd)
= = N7DU U554 T3A6 (Cont'd)
III K = = U56. A67T (Cont'd)
III = = 3DT6 AU.. TNU7 (Silent – 1117z)

5559 kHz, 20-11, 1103 UTC, i.p., handsent:

3N54 ANTT (Cont'd)
05 =
N6U7 .TND 7A.U (Cont'd)
05 05 =
T73N ..TU5 7T5T TU4T (Cont'd – very long msg)

5566 kHz, 20-11, 1126 UTC, i.p., machine sent:

43UN 6UDN UA36 DA53 UN4A (Cont'd)
AR 7. E (1128 silent)

5678 kHz, 20-11, 1102 UTC, i.p., handsent:

7345 = 4N5D A33U U6ND UD63 N7UT (Cont'd)

4444 kHz, 20-11, 1729 UTC, i.p., handsent:

MSG NR..... 9 1120 2230 =
.... 3N4D TDDA T5ND 35AN 34AT U6N7 (Cont'd)
QSL? K
QSA 2 QSA ? K (Both stations on this freq)
R
HR E GA K
HR GA K
R NR M NR EE OEE EE NR 02 ?
EEEE II II I
EE NR EEE NR 023/0239 =
0239/EX XEX
EE O EE NI EE NR 0239/EX
EEE O EEEEE NR 0239/EX 1519 =
A36 ?
A3II ?
A36/CD6 AR
A36/CD6 AR K
QSL ? K
R QSL QSL 1522 QSL QSL 1522 QSL 1522 K
HR M HW HR MSG N HR MSG GA K
R MSG 7G NR 070 7G NR 0240 CK 129 96 1120 1500 =
A345 777T 5TA7 U443 NU5U DU74 NUA3 5AU7 (Cont'd)
AR
BOZ BOZ TO GTB BOZ TO UPS UUP UP UJUP
UPS UJ UUUP UPS SSSS SSSSS ISSHSE
BPI S U UPS B UUPSB BUPSE UPSB K
R
HR HSRWK NR 1311 K
HR WN HR A HR ISHHR HR IEHR WK NR 1311 K
HR IS HR WK NR 1 HR WK NR HR WK NR O HR WK NR HR WKNR 311 K
R
HR IE .R EE HR U HR HR E GA K
HHR E GA K
HK HK HK HK EEEEEEE EEEEEEE EEEEEEE EEE EEE II EEEE (Silent 1748z)

5555 kHz, 21-11, 1256 UTC:

AR
= 42W == K 43..
= = 7U4D AR
R 10W == = TTAT AR
23W = = TATD AR
30W = A73B AR
71W = = E = = A54D AR
OI 1W K = = A6NA AR
QSL W WN QSL 2100 K
R R
R R (Silent 1302z)
.... 1121 2105 RMKS 05249 TO 2312 K
K
MSG NR 14 CK 199 78 1121 2105 (Another station came up on freq – 1307z)
R K
VVVVV 4HP RK RK
R H50 05 05 05 (1310z - Silent)

5687 kHz, 20-11, 1132 UTC, i.p., machine sent:

6NU3 37D5 734A N7TU 7DUD (Cont'd)
III = 6DAT 7ND3 3436 7N75 (Cont'd)

6655 kHz, 20-11, 1030 UTC:

VV WGA7 DE SQRM QSA EEE
VV WGA7 DE VRP4 K
Q42. R QSA 2 ICE = .254* AR K (Exercise related)
R ...AR K (Both stations on this freq)
R HR MSG GA K
GA K
R HR MSG PA NR S066/EEEE
NR MSG GA NR 001. CCK 91 69 .. 1830 RMKS EEE
RMKS 0735 TO 082=
UDT3 65TD 7.NN U67N 7DTU 375N .. (Cont'd)
HR WK NR 17 QSL K K

6838 kHz, 20-11, 1024 UTC, i.p.

7556 7T4N 3753 7A6D 33TT (Cont'd)
AR AGN

7825 kHz, 20-11, 0333 UTC:

U5AD NU63 DE7T 44AB T7UN 565U (Cont'd handsent)

7838 kHz, 20-11, 0339 UTC, i.p.

AR
RPT 1W.. (Both stations on this freq)
RPT 1W
QSL? K
RR NRPR 1W..
RRPT 13W 674U 674U K
OK
GA

8073 kHz, 20-11, 1206 UTC, i.p., handsent

4T4N N343 53DU 4DT4 (Cont'd – 1206z)

8022 kHz, 20-11, 1018 UTC, i.p.

93 /EX 815 RMKS ...
.../... AR
R60./EX .15 R..9 TO L90 ..
.../... AR
OK

5555 kHz, 22-11, 1304 UTC, i.p.

AS
BOZ USE UPSB WK
BOZ USE UPSB WK (BOZ is seen quite often in chat – possibly a callsign?)
BOZ USE UPSB WK (1307z - Silent)

5555 kHz, 28-11, 1226 UTC:

QSL 20 EEEE 2027 K K
K K (1226z silent)

7710 kHz, 21-11, 1033 UTC:

33W
= = = 6TD4 K (Both stations on this freq)
Q9W 19A = = NI = = = N7UA ARW
61W 61W 61W = = = = = TU55 AR W
(Cont'd to repeat groups)
QSL QSL
OK QSL QSL?
QSL 1838
OK OK NIL
NIL
SK SK GB

6775 kHz, 21-11, 0201 UTC, i.p., machine sent

F9AG DE JCY9
AU43 A4DN D65. ...AU 5NT7 7TAD (Cont'd)
AR 7UB4 III E 7U6NT III EEEEE
HR WK NR 31 QSL ? K
.... JCY JCY9 K (Callsign ?)
R AGN
R QL? K
QSL? K
R UWK NR ? K
R OK VA VV
F9AG DE JCY9 K
R RPT RW 9.. 9835 K
R RPT 26 W 1489 1489 K
R RPT 39W 7018 7018 K
R RPT .0W .820 .820 K
R R HR WK NR 32 K
R OK SK

4444 kHz, 28-11, 1707 UTC:

FOVQ V
R R R HN AGN HR. QSA 2 K
QSY TO NR 02 K
VV U. AGN U QSY TO NR 10 K
VV R.. QSY TO NR 16 K
VV DDE AGN .. (Another station has appeared on freq and causing
QRM – 1713z)
R K (1714 silent)

4444 kHz, 28-11, 1910 UTC:

= = = = = 7 VVV = = 45 = VV 7G NR 7G NR
7G NR 09 EEEE
7G NR 09 EEEEE
7G NR 083 K EEEEE
7G NR 07 EEEEE
7G NR 083 CK 499 90 1129 11 75 RMS 7308 TO 8027 K
=
A43A A5D4 U6N7 6DU4 5UTA UDA7 UTD7 5DT? UTD7 =
76? U775 7NUT A77T (Cont'd)
F377G NR 54. GNR 57 GG090 5474 DUAN TUA3 AAGGGGGG
4F555455
M0SE 5047 GNR 547 7G. 7G NR 54G0000 (1920z)
G007GA43AA5D4U6N76DU45UTA UDA7 UTD7 57NU TA77 (Cont'd)
K
VV HR GN HR 7G
HR HR MSG NR 083 CK .99 90 1129 .. 75 =
B4X4N 4I = = =
A43A A5D4 U6N7 6DU4 5UTA UDA7 (Cont'd)
K (1936z silent)

5866 kHz, 22-11, 1314 UTC, i.p.

R RPT 91W K
R RPT 91W N37A N37A K (Both stations on this freq)
R RPT G02 K
R RPT 90W 347N 347N K
R RPT 50W K
R RPT 502 TNTN TNTN K
R RPT 30W K
R RPT 30W 5D36 5D36 K
R RPT .0W K
R RPT 20W K RPT 20W T63U T63U K
R RPT 1.2 K
R RPT 10W A5EEEE RPT 10W A4.. A47. K
R RPT 9W K
R RPT 9W 5N46 5N46 K
R AS
R R AS RPT 08W K
R RPT 8W K
RPT 8W N546 N546 K
R RPT 9W K
R RPT 9W 5N46 K
R QSL ..15 K
R OK
ER HR AK NR 15 K
NR 10 K
R HR NIL SK
NIL SK

5555 kHz, 28-11, 1231 UTC:

30 AR K
FM = 47N5EEE
FM = 47D6 AR K
FM = N47A AR K
FM = 746U AR K
R F6100 70W = = 5157 577N 5T4D 6543 7UDU 63A5 D37T N367 6TAT
3DT3 AR
9 EEE AGN
915 90 W K
= T7U6 AR K
AGN
94W = UAU AR K
NUEEE = N36N AR K
AGN
8.W = K (Another station now of freq – 1237z)
...330 AR K
AGN
80W = 633T AR = 633T AR K
70W = 3DT3 AR K
GA

6666 kHz, 28-11, 0045 UTC:

R R DE 443T 43P4HW K
NN NR 1 RT RR NR 0120 NR 120 K
7G EE
OK 07G T7GPSA
S VV = 74II I AR
V 4 = A
R DE 4HP 4HP R K
NR 120 NR 120 R K
7G NR 617 CK 95 55 1106 0945 RMKS 5658 TO 5960
77G NR 6 7 G NR 6A7 CK 95 55 1106 0945 RMKS 5658 TO 5960
12345890P VV = I
VVV = 545053 (0058z silent)

3330 kHz, 29-11, 1750 UTC:

7NR /6380 AR
 = 80540/2.65/0300/.1. NR/6380 AR
 = 80..0/2..5/0300/1.7NR/6380. AR

3852 kHz, 29-11, 2047 UTC:

= 0357 0357 R EEEE K
 RPT K
 93W = T445 T445 K
 R AS K
 BOZ QSY NR 0. K
 VV 8WS1 DE FBB8 K
 BOZ QSY NR 4 III EEEE BOZ QSY NR 4 = EEEEE
 BOZ QSY NR 4. K
 GY2K DE FBB8 K
 R R GA K
 RPT TIME K
 RPT TIME K
 R GA K
 RPT ...2 TO ... K
 ...01 K
 BOZ ..LSB WK K

3378 kHz, 30-11, 2122 UTC, i.p.

43D7 NT66 U35U 7.5U AD7N AU7D (Cont'd)
 K = 37T7 37T7 AR K (2124z)
 = ...N6.4N K
 R SK SK
 R DE A75U GA K
 R GA (2125z)
 MSG NR 01 CK 91 98 1201 0430 RMKS 6644 TO 6434 =
 47NU TDD5 67DN (Cont'd)
 AR K (2129z)
 R 14W = UT7N UT7N AR K
 R 40W = 54DN 54DN AR K
 R OK GB

5421 kHz, 29-11, 1808 UTC:

43U5 AU43 AU34 N6A5 A3U5 T7AD (Cont'd)
 AR QSL? K
 R HR MSG NR 003 CK 99 66 0130 0205 K
 R HR RPT 59W 654A 654A K
 R RPT 59W NATD NATD K
 R HR WK NR 410 K
 R HR NIL SK

5535 kHz, 29-11, 1816 UTC:

NR 8725 TIME TIME 0217 K K
 .. QS. AR O DE ..
 AETO
 DE 9204 U QSY CODE 9204 U QSY CODE 9204 U QSY
 AGN (Both stations on this freq)
 DE 9204 K
 9204 K K
 AGN
 U QSY CODE 9204
 OK OK
 U QSY CODE 9204 K
 OK OK
 U QSY (Station fading)
 QSA 2
 AGN
 21. K QS. 021.
 OK
 EE NR NR 874 ...02 .. K
 OK = = (Mostly unreadable now – 1824z)

8888 kHz, 30-11, 0232 UTC, i.p., hand sent

7567 5TD3 N445 U6DA 7364 3UNA (Cont'd)
 (Silent – 0252z)

5555 kHz, 30-11, 1101 UTC, i.p.

3AU7 567A DN45 6.UD (Cont'd – handsent – very slow)
 UT3465
 LND7TAU3456D.7NUA3 (Cont'd)
 R 51151 67DN T43A D7DN U3T5 A4A? A467 DNTU (Cont'd)

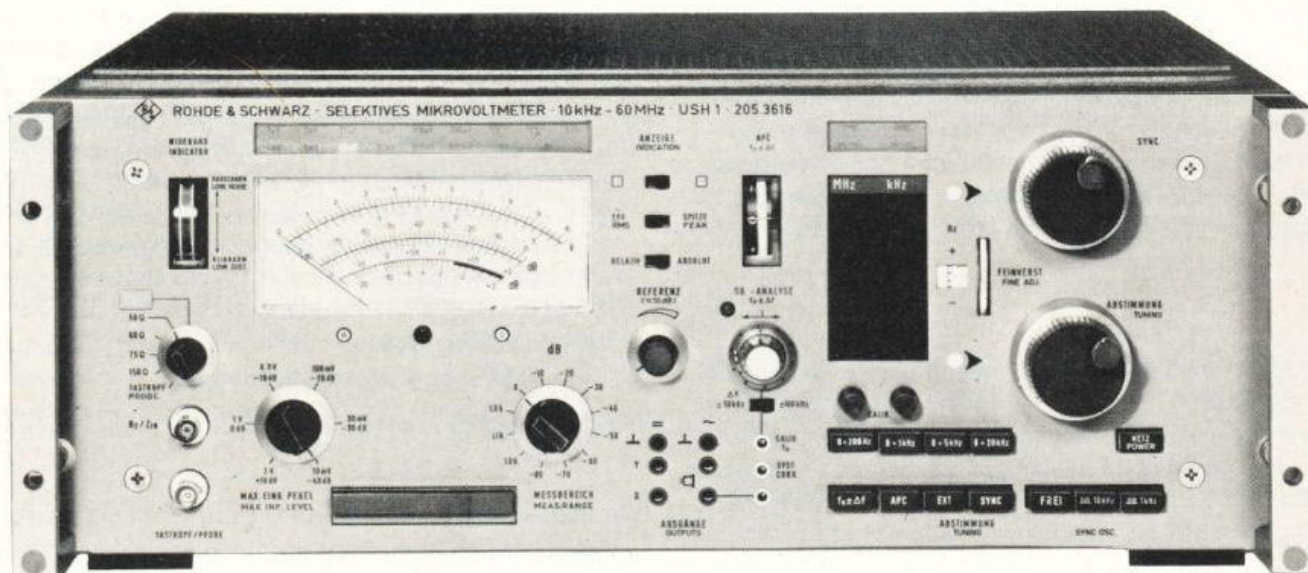


MC03

Chinese Air Defense

3948 kHz, 29-11, 2045 UTC, i.p.:

36N U3UNNN ATT 43
 36N U3TNU6 73N3343 AT3 43
 36N U47NN3 AAT 43
 36N U47NNN .U74ND7 ATT 44
 36N U47T.. 55D7DND AAD 44



Rohde & Schwarz Microvolt meter USH1

VARIOUS MODES



SK01 / HM01

Dirección General de Inteligencia

frequency	date	UTC	remarks
17540	2-11-2013	2300	84858 17625 50554 77451 05043 12835
11530	3-11-2013	2300	04421 17626 50555 77452 05044 12836
17480	5-11-2013	2250	in progress until 2255 abrupt end. Back at 2259 and ends at 2300
9330	6-11-2013	0725	YL speaking Spanish and digital alternate
11530	8-11-2013	2300	37701 47214 85462 24572 06013 07163
16180	9-11-2013	2100	DGI. Spanish 5LGs followed by RDFT data. 2125 silent. Restarted 2128
16180	9-11-2013	2200	DGI. Spanish 5LGs followed by RDFT data. Abrupt stop at 2213
17480	9-11-2013	2213	DGI. Spanish 5LGs followed by RDFT data in progress
11530	10-11-2013	2300	37703 47216 85464 24574 06015 07165
9240	11-11-2013	0800	Cuban Intel, Cuba
11530	11-11-2013	2300	37704 47217 85465 24575 47351 07166
16180	12-11-2013	2100	37705 34811 85466 11131 47352 07167
11530	13-11-2013	2300	37705 34811 85466 11131 47352 07167
16180	14-11-2013	2100	37706 34812 85467 11132 47353 07168
16180	14-11-2013	2121	37706 34812 85467 11132 47353 07168
17480	14-11-2013	2200	37706 34812 85467 11132 47353 07168
17540	14-11-2013	2259	37706 34812 85467 11132 47353 07168
10715	15-11-2013	2300	37707 34813 73541 11133 47354 32321 Note diff 3rd & 6th grps and change in 5th digit of other grps.
11435	16-11-2013	1625	88601 34814 73542 11134 47355 32322 161625
11530	16-11-2013	1659	88601 34814 73542 11134 47355 32322 161625
11635	16-11-2013	1759	88601 34814 73542 11134 47355 32322 161625
16180	16-11-2013	2106	88601 34814 73542 11134 47355 32322 161625
17480	16-11-2013	2159	88601 34814 73542 11134 47355 32322 161625
17540	16-11-2013	2300	88601 34814 73542 11134 47355 32322 161625

frequency	date	UTC	remarks
5855	17-11-2013	0533	sked w/ YL/SS & RDFT signals
10345	17-11-2013	0625	88601 34184 72542 11134 47355 32322
9330	17-11-2013	0700	88601 34184 72542 11134 47355 32322
11530	17-11-2013	1719	88602 34815 73543 11135 27801 32323
11635	17-11-2013	2104	88602 34815 73543 11135 27801 32323
10715	17-11-2013	2202	88602 34815 73543 11135 27801 32323
11530	18-11-2013	1733	88603 34816 73544 11136 27802 32324
11635	18-11-2013	1801	88603 34816 73544 11136 27802 32324
11635	18-11-2013	2103	88603 34816 73544 11136 27802 32324
10715	18-11-2013	2200	88603 34816 73544 11136 27802 32324
11530	18-11-2013	2300	88603 34816 73544 11136 27802 32324
11530	19-11-2013	1707	88604 34817 73545 37451 27803 32325
11635	19-11-2013	1808	88604 34817 73545 37451 27803 32325
16180	19-11-2013	2102	88604 34817 73545 37451 27803 32325
17480	19-11-2013	2204	88604 34817 73545 37451 27803 32325
17480	19-11-2013	2301	88604 34817 73545 37451 27803 32325. Starting over on this freq. Should be on 17540. At 2301 apparently caught their error. Carrier now on 17540 and into 88604 etc at 2303
17540	19-11-2013	2303	88604 34817 73545 37451 27803 32325. Comes from 17480 kHz
11435	20-11-2013	1605	88605 56511 73546 37452 27804 32326
11530	20-11-2013	1718	88605 56511 73546 37452 27804 32326
11635	20-11-2013	1759	88605 56511 73546 37452 27804 32326
11635	20-11-2013	2102	88605 56511 73546 37452 27804 32326
10715	20-11-2013	2159	88605 56511 73546 37452 27804 32326
11530	20-11-2013	2259	88605 56511 73546 37452 27804 32326
16180	21-11-2013	2103	88606 56512 46771 37453 27805 71261
17540	21-11-2013	2249	88606 etc. But this is the 2300 freq??
17540	21-11-2013	2300	88606 etc.
11435	22-11-2013	1603	88606 56512 46771 37453 27805 71261
11530	22-11-2013	1700	88606 56512 46771 37453 27805 71261
11635	22-11-2013	1759	88606 56512 46771 37453 27805 71261
11635	22-11-2013	2107	88606 56512 46771 37453 27805 71261
10715	22-11-2013	2206	88606 56512 46771 37453 27805 71261
11530	22-11-2013	2300	88606 56512 46771 37453 27805 71261
11435	23-11-2013	1605	Uno Uno Uno Uno (hung up) then 83381 22574 15441 50182 08444 51835
11530	23-11-2013	1808	83831 22754 15441 50182 08444 51835etc
11635	23-11-2013	1809	83831 22754 15441 50182 08444 51835etc
16180	23-11-2013	2108	88606 56512 46771 37453 27805 71261 (can also hear grps from previous sked)
17480	23-11-2013	2227	88606 56512 46771 37453 27805 71261 & 83831 22754 15441 50182 08444 51835. Both sets of groups being xmted
17540	23-11-2013	2306	88606 56512 46771 37453 27805 71261 & 83831 22754 15441 50182 08444 51835. Groups also messed up on this sked
11435	24-11-2013	1607	88605 56511 73546 37452 27804 32326
11530	24-11-2013	1701	88605 56511 73546 37452 27804 32326
11635	24-11-2013	1759	88605 56511 73546 37452 27804 32326
11635	24-11-2013	2107	88605 56511 73546 37452 27804 32326
10715	24-11-2013	2159	88605 56511 73546 37452 27804 32326
11530	24-11-2013	2300	37452 27804 32326 88605 56511 73546
11530	24-11-2013	2324	88605 56511 73546 37452 27804 32326
11530	25-11-2013	1730	88605 etc
11635	25-11-2013	1759	88605 etc
11635	25-11-2013	2101	88605 etc
10715	25-11-2013	2202	88605 etc
11530	25-11-2013	2258	88605 etc

frequency	date	UTC	remarks
11635	26-11-2013	1805	88605 etc
16180	26-11-2013	2104	88605 etc
17480	26-11-2013	2228	88605 etc
17540	26-11-2013	2300	37452 27804 32326 88605 56511 73546
11435	27-11-2013	1603	88605 56511 73546 37452 27804 32326
11530	27-11-2013	1659	88605 etc
11530	27-11-2013	1759	88605 etc. Should be on 11635 kHz. They caught their mistake & shifted to 11635 kHz at 1803
11635	27-11-2013	1803	Shifted from 11530 to 11635 kHz at 1803
11635	27-11-2013	2101	88605s etc
10715	27-11-2013	2201	88605 etc mixed with M08a
11435	28-11-2013	1605	88606 56512 46771 37453 27805 71261
11530	28-11-2013	1658	88606 etc at 281658
11635	28-11-2013	1758	88606 etc at 281758
16180	28-11-2013	2058	88606 etc atg 282058
17480	28-11-2013	2211	88606 etc at 282211
17480	28-11-2013	2220	female mechanical synthesized voice repeated 6 5FGs followed by RDFT data
17540	28-11-2013	2258	88606 etc at 282258 Weak sig & fading
5855	29-11-2013	0530	Spanish Numbers w/ Data
9330	29-11-2013	0700	
11435	29-11-2013	1624	88606 56512 46771 37453 27805 71261
11530	29-11-2013	1704	88606 56512 46771 37453 27805 71261
11635	29-11-2013	1811	88606 56512 46771 37453 27805 71261
11635	29-11-2013	2104	88606 56512 46771 37453 27805 71261
11530	30-11-2013	1742	88606 etc
11635	30-11-2013	1759	88606 etc
16180	30-11-2013	2103	88606 etc
16180	30-11-2013	2106	YL/SS numbers & RDFT tones
17480	30-11-2013	2203	88606 etc
17540	30-11-2013	2259	88606 etc



M42 & X06



Modes:
Various digital modes, CW,
Tones (Мазелка / Mazielka)

Russian Government & Intelligence



frequency	date	UTC	mode	remarks
10165	14-11-2013	0835	Baudot 50/500	Russian Gov/Intel. Mark after every 50th group
10169	14-11-2013	0835	Baudot 50/500	Russian Gov/Intel. Mark after every 50th group
13373.2	9-11-2013	0647	CROWD-36	Russian diplo.
14734	12-11-2013	1425	FSK 200/1000	Russian Diplo/Intel.
14880	5-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 41010, 47964, 41023, 41018
14880	6-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 04114, 00058, 41018
14880	11-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 13366, 13334, 41018, 13322
14880	12-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 41008, 40986, 41008, 64518, 64197
14880	13-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 61498, 41018
14880	18-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 61498, 41018
14880	20-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 41018, 40986, 41082
14880	21-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 35953, 00019, 40960, 00840
14880	22-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 41016, 00058, 11301, 57400, 58458, 00056, 41018, 44403
14880	25-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 00058, 63517, 41018, 57352
14880	26-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 40986, 00032, 08304, 41018, 42272
14880	27-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 00933, 41018, 16485, 40970, 41018
14880	28-11-2013	0230	FSK 200/1000	Russian Intel. Messages on links 04150, 40986, 63374, 41012, 32826
16249	30-11-2013	1320	FSK 200/500	Russian intel.
16320	5-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 13366, 41018
16320	6-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 13438, 57652, 41018, 43066, 41022
16320	11-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 00035, 41018, 63511, 04249, 57470, 32010, 10256
16320	12-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 62192, 30406, 64735, 40970
16320	13-11-2013	0150	FSK 200/1000	Russian Intel. Messages on link 43218
16320	18-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 05912, 29191, 42741, 41018, 61764
16320	20-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 45112, 27918
16320	21-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 32826, 63511, 12461, 54963, 35326, 21184, 41018, 41070
16320	22-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 05170, 08254
16320	25-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 41018, 32826
16320	26-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 15486, 41018
16320	27-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 41018, 01235, 48839
16320	28-11-2013	0150	FSK 200/1000	Russian Intel. Messages on links 13366, 41023, 04159, 41018, 61503, 40976
18351	30-11-2013	1310	FSK 200/500	Russian intel.
19851	22-11-2013	1025	Hybrid MFSK-80	Russian intel.
20374	30-11-2013	1300	FSK 200/500	Russian intel.

16320 kHz, 05-11, 0150 UTC, FSK 200/1000

Link ID 13366 Msg Number 000 Msg Type 13366 Group Count 0
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245

16384 00000 00000 01852 15371 03468 00000 14382
 32768 60117 44389 21576 21686 00839 31123 45013
 32768 60117 44389 21576 21686 00839 31123 45013
 32768 60117 44389 21576 21686 00839 31123 45013
 32768 60117 44389 21576 21758 00991 31159 45055
 32768 60117 44389 21576 21686 00839 31123 45013
 32768 60117 44389 21576 21686 00839 31123 45013

14880 kHz, 05-11, 0230 UTC, FSK 200/ 1000

Link ID 41010 Msg Number 205 Msg Type 07145 Group Count 245
 Link ID 47964 Msg Number 237 Msg Type 01025 Group Count 0
 Link ID 41023 Msg Number 207 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 205 Msg Type 07145 Group Count 245

32768 60101 48516 62608 00000 00007 06146 01669
 00092 00000 00897 03295 14843 16380 04081 32253
 32768 60117 44303 21576 29942 00839 32147 61397
 32768 60117 44389 21576 21686 00839 31123 45008

16320 kHz, 06-11, 0150 UTC, FSK 200/1000

Link ID 13438 Msg Number 000 Msg Type 13366 Group Count 0
 Link ID 57652 Msg Number 180 Msg Type 07145 Group Count 14
 Link ID 41018 Msg Number 210 Msg Type 02793 Group Count 6
 Link ID 43066 Msg Number 208 Msg Type 07145 Group Count 14
 Link ID 41022 Msg Number 242 Msg Type 07145 Group Count 14

16384 00000 00001 03964 26899 02824 00257 28701
 32776 11842 62476 36570 43132 09594 00566 17859
 00000 09730 00646 34149 21558 04789 18835 62176
 32768 11842 37508 34661 05310 04789 18867 62176
 32768 11842 37518 34807 21686 04789 35219 29408

14880 kHz, 06-11, 0230 UTC, FSK 200/1000

Link ID 04114 Msg Number 000 Msg Type 05138 Group Count 0
 Link ID 00058 Msg Number 210 Msg Type 07145 Group Count 14
 Link ID 41018 Msg Number 210 Msg Type 07145 Group Count 14
 Link ID 41018 Msg Number 210 Msg Type 07145 Group Count 14

00000 00000 00000 00788 07169 01036 00000 04102
 32768 11840 37510 34661 21687 05047 18843 62200
 32768 11842 37510 34661 21686 04789 18835 62176
 32768 11842 37510 34661 21686 04789 18835 62176

16320 kHz, 11-11, 0150 UTC, FSK 200/1000

Link ID 00035 Msg Number 224 Msg Type 07081 Group Count 176
 Link ID 41018 Msg Number 251 Msg Type 08169 Group Count 255
 Link ID 63511 Msg Number 240 Msg Type 39420 Group Count 243
 Link ID 04249 Msg Number 192 Msg Type 45060 Group Count 67
 Link ID 57470 Msg Number 243 Msg Type 24553 Group Count 127
 Link ID 32010 Msg Number 003 Msg Type 02438 Group Count 96
 Link ID 10256 Msg Number 148 Msg Type 18457 Group Count 136

32768 01792 34824 00071 10834 51136 18410 09942
 50192 01794 64669 04302 62979 05510 63330 62594
 51208 35719 65116 37030 25179 33222 62058 49878
 13684 15120 01298 03108 07068 44656 27584 13890
 34817 03878 64697 12508 64767 08159 65277 28157
 49233 02113 08000 09941 21358 09604 62198 06860
 00253 38368 50578 11032 21153 02199 60417 55704

14880 kHz, 11-11, 0230 UTC, FSK 200/1000

Link ID 13366 Msg Number 000 Msg Type 13366 Group Count 0
 Link ID 13334 Msg Number 000 Msg Type 13362 Group Count 0
 Link ID 41018 Msg Number 225 Msg Type 07145 Group Count 245
 Link ID 13322 Msg Number 003 Msg Type 00130 Group Count 32
 Link ID 41018 Msg Number 225 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 225 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 225 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 225 Msg Type 07145 Group Count 245

17248 00000 00000 00343 15371 03851 00000 48887
 17248 00000 00000 00256 15371 03851 00000 48887
 32768 01794 64664 04172 21686 01677 65236 42172
 20480 00448 01792 00581 20774 08960 61682 04300
 32768 01794 64664 04172 21686 01677 65236 42172
 32768 01794 64664 04172 21686 01677 65268 42172
 32768 01794 64664 04172 21686 01677 65236 42172
 32768 01794 64664 04172 21686 01677 65236 42172

16320 kHz, 12-11, 0150 UTC, FSK 200/1000

Link ID 62192 Msg Number 136 Msg Type 17437 Group Count 17
 Link ID 30406 Msg Number 096 Msg Type 53593 Group Count 167
 Link ID 64735 Msg Number 059 Msg Type 05360 Group Count 10
 Link ID 40970 Msg Number 110 Msg Type 07145 Group Count 247
 Link ID 62192 Msg Number 140 Msg Type 17565 Group Count 27

35898 12610 28464 24450 05673 16463 21708 13147
 31695 45540 04098 22274 65491 50188 09953 64135
 43323 05393 32736 08033 31709 58535 03776 15183
 32768 35192 60718 08753 65276 00707 49695 30477
 35898 13570 28464 24450 05673 16396 21580 13243

14880 kHz, 12-11, 0230 UTC, FSK 200/1000

Link ID 41008 Msg Number 226 Msg Type 07145 Group Count 245
 Link ID 40986 Msg Number 038 Msg Type 07145 Group Count 245
 Link ID 41008 Msg Number 224 Msg Type 05096 Group Count 112
 Link ID 41018 Msg Number 230 Msg Type 07145 Group Count 245
 Link ID 64518 Msg Number 011 Msg Type 53250 Group Count 129
 Link ID 41018 Msg Number 231 Msg Type 04841 Group Count 241
 Link ID 64197 Msg Number 025 Msg Type 00168 Group Count 5
 Link ID 40986 Msg Number 230 Msg Type 07149 Group Count 245
 Link ID 41018 Msg Number 230 Msg Type 07145 Group Count 245

32768 35192 60758 08960 03766 00225 00543 12943
 32768 35192 60766 08993 21758 00195 16959 12815
 32768 34824 60742 08961 60662 00193 17951 14094
 32768 35192 60766 08993 21686 00192 16919 12814
 22711 02276 22550 13995 43935 38176 46657 12256
 32768 00376 60766 08995 64690 00193 50719 29198
 16405 00000 15200 03937 06621 58535 03776 15183
 32776 35192 60510 00257 21686 00193 16927 12814
 32768 35320 60766 08993 21686 00193 16927 12814

16320 kHz, 13-11, 0150 UTC, FSK 200/1000

Link ID 43218 Msg Number 248 Msg Type 10649 Group Count 132

08901 47346 01584 22487 08545 16393 34340 08999

14880 kHz, 13-11, 0230 UTC, FSK 200/1000

Link ID 61498 Msg Number 203 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 15337 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245

32768 00019 14343 14339 21686 00453 49377 34438
 32768 00018 14439 10355 21686 00453 49377 34447
 32768 00018 14439 14451 21558 00452 49376 34434
 32768 00018 14439 14451 21686 00453 49377 34438
 32784 00018 14439 14451 21694 00197 16609 33446

16320 kHz, 18-11, 0150 UTC, FSK 200/1000

Link ID 05912 Msg Number 160 Msg Type 13398 Group Count 0
 Link ID 29191 Msg Number 060 Msg Type 24676 Group Count 61
 Link ID 42741 Msg Number 157 Msg Type 35178 Group Count 110
 Link ID 41018 Msg Number 000 Msg Type 08173 Group Count 241
 Link ID 61764 Msg Number 001 Msg Type 07145 Group Count 101

08643 00000 02048 00883 00448 35904 02048 09984
 00479 03842 49226 02504 54776 64758 36738 06128
 19842 02736 37144 26023 57397 28624 23163 33222
 36868 65250 64852 11537 01062 02607 25610 45627
 36864 52983 64396 27146 32959 00383 55327 13039

14880 kHz, 18-11, 0230 UTC, FSK 200/1000

Link ID 61498 Msg Number 203 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 15337 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 235 Msg Type 07145 Group Count 245

32768 00019 14343 14339 21686 00453 49377 34438
 32768 00018 14439 10355 21686 00453 49377 34447
 32768 00018 14439 14451 21558 00452 49376 34434
 32768 00018 14439 14451 21686 00453 49377 34438
 32784 00018 14439 14451 21694 00197 16609 33446

16320 kHz, 20-11, 0150 UTC, FSK 200/1000

Link ID 45112 Msg Number 001 Msg Type 06633 Group Count 245
 Link ID 27918 Msg Number 198 Msg Type 53249 Group Count 100

32776 21008 61745 31525 05174 00152 19033 00192
 09728 54273 12090 28474 55975 01594 35135 07167

14880 kHz, 20-11, 0230 UTC, FSK 200/1000

Link ID 41018 Msg Number 005 Msg Type 00489 Group Count 113
 Link ID 41018 Msg Number 000 Msg Type 06921 Group Count 245
 Link ID 40986 Msg Number 005 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 005 Msg Type 03049 Group Count 37
 Link ID 41082 Msg Number 133 Msg Type 08169 Group Count 245

32768 16912 61751 23341 21695 02239 20025 01216
 32768 21008 61747 23336 00022 00154 00601 00192
 32776 21008 61751 23341 21686 02207 20057 01216
 32768 00528 61735 18989 17414 02202 20057 00064
 36864 61968 62327 65325 21686 02202 20057 01216

16320 kHz, 21-11, 0150 UTC, FSK 200/1000

Link ID 32826 Msg Number 015 Msg Type 04073 Group Count 245
 Link ID 63511 Msg Number 007 Msg Type 07149 Group Count 245
 Link ID 12461 Msg Number 192 Msg Type 57290 Group Count 223
 Link ID 54963 Msg Number 190 Msg Type 61454 Group Count 87
 Link ID 35326 Msg Number 236 Msg Type 38346 Group Count 207
 Link ID 21184 Msg Number 104 Msg Type 44786 Group Count 20
 Link ID 41018 Msg Number 010 Msg Type 03049 Group Count 245
 Link ID 41070 Msg Number 017 Msg Type 06633 Group Count 245

49152 63911 57070 04193 61622 01950 17902 10134
 32792 63999 63358 36912 08923 00967 06903 52039
 52665 63335 12307 38877 38142 20215 44539 04597
 43329 59637 57816 51702 64743 50637 23085 14986
 17849 13159 07169 36838 52831 44969 21158 02261
 04318 38800 61201 32626 47714 03072 13622 23439
 32768 47523 53998 04192 21686 01950 13822 42902
 32768 47527 57068 04336 58390 01694 28910 33936

14880 kHz, 21-11, 0230 UTC, FSK 200/1000

Link ID 35953 Msg Number 034 Msg Type 40009 Group Count 25
 Link ID 00019 Msg Number 008 Msg Type 24816 Group Count 0
 Link ID 40960 Msg Number 000 Msg Type 07144 Group Count 241
 Link ID 00840 Msg Number 007 Msg Type 12640 Group Count 35

16693 33541 32966 38279 59240 47164 25456 22426
 12322 24784 01552 16576 00207 01099 08350 01935
 32768 47495 57028 04160 02061 01557 12484 17453
 05017 21008 06155 04667 16508 25773 01392 32240

16320 kHz, 22-11, 0150 UTC, FSK 200/1000

Link ID 05170 Msg Number 212 Msg Type 02847 Group Count 203
 Link ID 08254 Msg Number 020 Msg Type 03065 Group Count 117

57369 29656 42063 38865 38673 44871 22895 08285
 00000 00396 64438 15350 21558 02476 30661 61604

14880 kHz, 22-11, 0230 UTC, FSK 200/1000

Link ID 41016 Msg Number 000 Msg Type 07145 Group Count 241
 Link ID 00058 Msg Number 020 Msg Type 07017 Group Count 240
 Link ID 11301 Msg Number 047 Msg Type 15160 Group Count 154
 Link ID 57400 Msg Number 016 Msg Type 07145 Group Count 245
 Link ID 58458 Msg Number 223 Msg Type 02121 Group Count 79
 Link ID 00056 Msg Number 016 Msg Type 07136 Group Count 245
 Link ID 41018 Msg Number 020 Msg Type 07113 Group Count 240
 Link ID 44403 Msg Number 066 Msg Type 49160 Group Count 20

32768 08584 56242 15118 21520 02304 30531 61548
 32768 08320 19382 15198 20534 02348 30663 61679
 44308 47156 03077 06156 64793 09086 10512 56405
 32768 08584 56242 15110 05302 02476 14279 61677
 14840 05975 34031 00253 45365 26419 59413 02616
 32768 08456 51638 39236 42239 02558 22495 62447
 32768 08328 57270 16222 21686 02476 30662 61677
 17155 31489 04995 06411 46739 36661 59839 51674

16320 kHz, 25-11, 0150 UTC, FSK 200/1000

Link ID 41018 Msg Number 025 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 027 Msg Type 07145 Group Count 245
 Link ID 32826 Msg Number 009 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 025 Msg Type 07145 Group Count 240

32768 47145 05114 05820 21686 00737 20974 54166
 32768 47145 00858 05820 22198 00545 00334 41876
 32768 47393 00783 05820 61444 00577 53294 53254
 32768 47145 00858 04796 21694 00737 20974 54166

14880 kHz, 25-11, 0230 UTC, FSK 200/1000

Link ID 00058 Msg Number 025 Msg Type 07136 Group Count 245
 Link ID 63517 Msg Number 132 Msg Type 40820 Group Count 242
 Link ID 41018 Msg Number 025 Msg Type 06624 Group Count 49
 Link ID 57352 Msg Number 009 Msg Type 07145 Group Count 245

32768 47104 00858 05820 21750 00753 20990 54166
 51208 64533 33709 08150 10971 33264 08319 59715
 32768 38913 00858 05820 21686 00737 20974 54166
 32768 47145 00778 05788 21686 00753 20990 54166

16320 kHz, 26-11, 0150 UTC, FSK 200/1000

Link ID 15486 Msg Number 000 Msg Type 13374 Group Count 0
 Link ID 41018 Msg Number 028 Msg Type 08169 Group Count 245

17250 00000 00000 01023 32015 03847 04368 65279
 32769 62145 62688 31876 22263 02463 58367 51338

14880 kHz, 26-11, 0230 UTC, FSK 200/1000

Link ID 40986 Msg Number 030 Msg Type 06377 Group Count 240
 Link ID 00032 Msg Number 028 Msg Type 07144 Group Count 245
 Link ID 08304 Msg Number 158 Msg Type 07145 Group Count 245
 Link ID 41018 Msg Number 030 Msg Type 07145 Group Count 245
 Link ID 42272 Msg Number 028 Msg Type 07145 Group Count 117

32769 62145 28900 29836 21686 02333 58293 51203
 32768 62144 29892 31756 21686 02333 58293 51203
 32769 62145 29924 31884 17462 02069 24628 49155
 32769 62145 29812 31884 21686 02333 58289 51203
 32769 62145 63680 63628 20486 00029 25013 49155

16320 kHz, 27-11, 0150 UTC, FSK 200/1000

Link ID 41018 Msg Number 045 Msg Type 06921 Group Count 250
 Link ID 01235 Msg Number 174 Msg Type 19187 Group Count 34
 Link ID 48839 Msg Number 127 Msg Type 20127 Group Count 111

32769 42006 52159 08323 23798 01938 28781 29025
 11715 20705 59904 28802 54783 32358 49990 50469
 43739 00051 53239 16380 31140 18664 62832 24443

14880 kHz, 27-11, 0230 UTC, FSK 200/1000

Link ID 00933 Msg Number 208 Msg Type 07146 Group Count 250
 Link ID 41018 Msg Number 045 Msg Type 07145 Group Count 250
 Link ID 16485 Msg Number 091 Msg Type 07145 Group Count 250
 Link ID 40970 Msg Number 013 Msg Type 07145 Group Count 250
 Link ID 41018 Msg Number 045 Msg Type 07145 Group Count 250

32770 42914 48119 02103 18797 15648 01747 01559
 32769 44982 52159 08323 21686 00976 28776 28704
 32771 44989 34398 16406 43248 01541 57546 58307
 32769 44854 49567 00003 20498 00064 16384 12320
 32769 44991 60351 57475 21686 00978 28781 28769

16320 kHz, 28-11, 0150 UTC, FSK 200/1000

Link ID 13366 Msg Number 000 Msg Type 13318 Group Count 0
Link ID 41023 Msg Number 187 Msg Type 04585 Group Count 14
Link ID 04159 Msg Number 179 Msg Type 05500 Group Count 7
Link ID 41018 Msg Number 035 Msg Type 07145 Group Count 14
Link ID 41018 Msg Number 035 Msg Type 07145 Group Count 14
Link ID 61503 Msg Number 179 Msg Type 08061 Group Count 15
Link ID 40976 Msg Number 003 Msg Type 07145 Group Count 14

16384 00000 00000 01852 15371 03468 00000 14382
32769 32880 20473 33586 43767 33791 57662 53094
34824 61496 43003 17207 65235 33271 28955 52002
32769 24688 19170 33317 21686 04847 21286 38720
32769 57456 19170 33317 21686 04847 21286 38724
34825 61496 61435 49958 59986 33170 41219 51746
32769 57456 19138 32773 21686 04847 21294 38724

14880 kHz, 28-11, 0230 UTC, FSK 200/1000

Link ID 04150 Msg Number 000 Msg Type 13366 Group Count 0
Link ID 40986 Msg Number 051 Msg Type 06792 Group Count 8
Link ID 63374 Msg Number 050 Msg Type 00636 Group Count 133
Link ID 41012 Msg Number 033 Msg Type 02537 Group Count 5
Link ID 32826 Msg Number 035 Msg Type 04841 Group Count 14

00000 00000 00000 01596 31755 03468 00000 14382
32769 57456 02274 33317 21695 04847 21486 38860
01801 02104 20734 02016 00084 01540 49556 00309
33025 57456 00112 00660 01042 00102 00258 00516
32769 49264 16610 32773 21680 04832 21282 38724

	frequency	date	UTC	remarks
X06	13520	14-11-2013	1234	Mazielka. Sequence: 612534
X06	17510	14-11-2013	1246	Mazielka. Sequence: 612534
X06	18575	21-11-2013	1254	Mazielka. Sequence: 352416

Eddy Waters copied an unid mode on 19851 kHz on 22-11 at 1025 UTC. The mode is being used by Russian Intelligence and is a Hybrid MFSK-80 mode in USB. Eddy's recording can be found on the N&O website.

Leif Dehio has added this mode to his website and provided the info below.

FFT Spectra: http://www.signals.taunus.de/FFT/RUS-Intel_Hybrid_MFSK-80.HTML

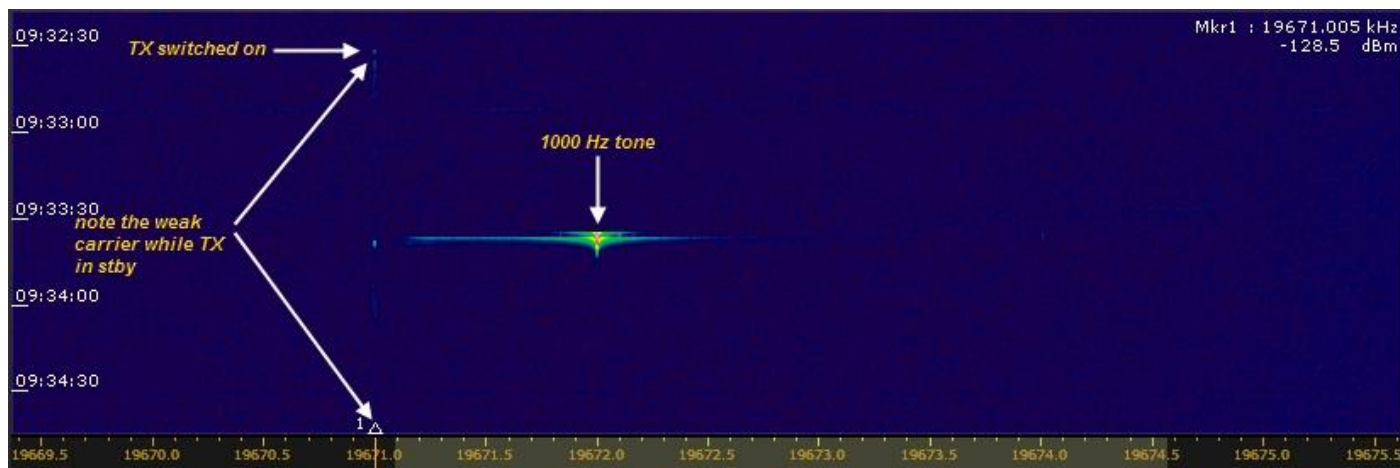
Audio file (full transmission): http://www.signals.taunus.de/WAV/RUS-Intel_Hybrid_MFSK-80.WAV

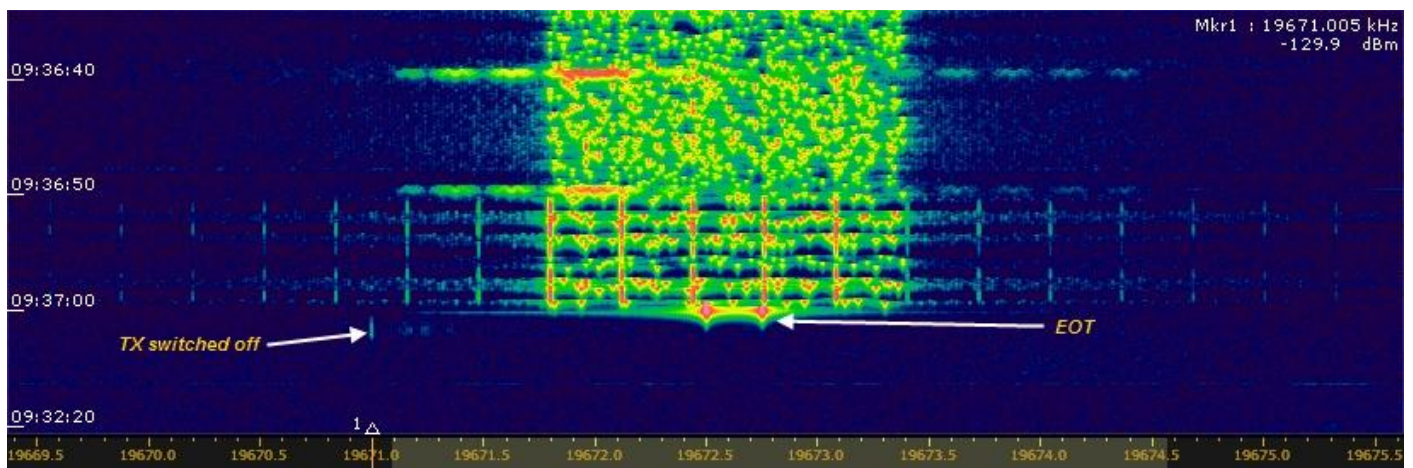
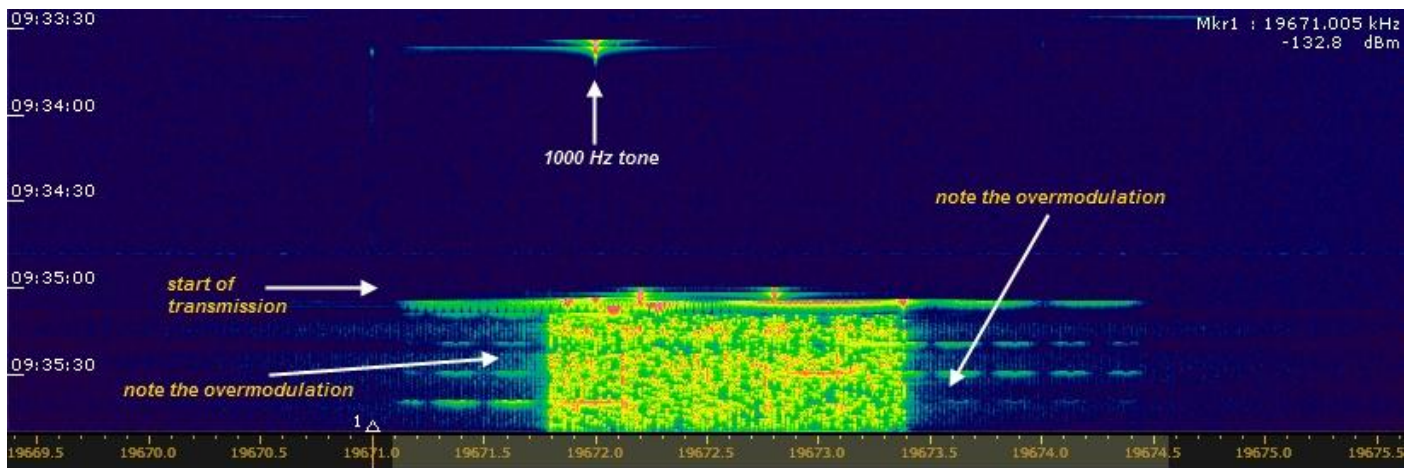
Note the beginning of the transmission, which is quite similar to the start of the XP family transmissions (alternating tones).

The system seems to use the following schedules:

16287 kHz, 0830 UTC
16088 kHz, 0915 UTC
17427 kHz, 0920 UTC
18036 kHz, 0925 UTC
18532 kHz, 0930 UTC
19671 kHz, 0935 UTC
16287 kHz, 0830 UTC
17472 kHz, 0835 UTC

The transmissions are preceded by a short 2 second 1000 Hz tone approximately 1 minute and 25 seconds prior to each slot. The attached Perseus screenshots show some transmitter "peculiarities".





XP family

Three decoders have been used decoding these messages. The actual messages include double characters. Both Code 300 and Sorcerer decode the double characters and Rivet apparently skips the second character, hence the difference in the messages below.

Example:

Header as decoded by Code 300 and Sorcerer:

445566 445566 11 445566 445566 445566 11 445566 445566 445566 11

Header as decoded by Rivet:

456 456 1 456 456 456 1 456 456 456 1

Message as decoded by Code 300 and Sorcerer:

0099227733 0000221133 6611112277 8844229944 6622115500 5544990000 5588004433 2255666622 6688223300 etc.

Message as decoded by Rivet:

09273 00213 61127 84294 62150 54900 58043 25662 68230 etc.

000687 00127 38886 83578 70243 64324 64531 29323 37735 46590 50121 12795 23335 21545 92480
84259 51848 92250 51671 77042 33840 33363 07090 84272 98826 05749 72215 73431 07226 94205
91395 35353 42749 16113 01112 56952 19050 69143 84222 80611 26429 34557 56333 37633 30798
65512 200 36 57 54375 779937 19696 99466 78330064433 2500576507795550 39 00916552777 31198
41141 2116 1 3068 0 0760 421147 6202 27133 64651 2288 1186 1666 07390 83263 6639747778 61864
22112 66331 005744 6586698965 13807 15217770044 88700 39843 2740 00242 89999 7677 89386
44935 20400 93946 566731 66 95963 8421 70166643867 00014 09874 3159 00053 00281 74403349848
93418 36590 25099 3367 59997 676 90848 26924 95928 31446 23451 56574 36003 29318 85571 36752
68564 08377 62858 78245 87530 04442
End Tone

[illegible][illegible]



XSL a.k.a. Slot Machine
Japan Maritime Self-Defense Force
海上自衛隊 Kaijō Jieitai

Still alive and kicking.....

Copied on 18-11 at 2116 UTC on 4153, 4231.5, 6250, 6417, 6445, 8313, 8588 and 8703.5 kHz.

Mode: QPSK 1500bd



Czech diplomatic stations

18320 kHz, 29-11, 1105 UTC, Pactor-III: Czech embassy Islamabad. Copied by Nils.

Some of the decoded text:

Islama 12345678 è}.HTOPon goeaeafeisakajafal PURSAF__CN=ISLAMABAD/O=ZSMZV_S.B__8__"__@____
 _____1\\$\$Servers_CN=ZPRAGA01/O=ZSMZV_ClusterName__B_____z_____IN
 p_____MAILDomain_t_____mox_____
 _____Principal__CN=ISLAMABAD/O=ZSMZVU_____Form__MemoU_AltFrom}___CN=ISLAMABAD/O=ZSMZVU____
 Logo__stdNotesLtrOU_____Sign__0_U_____
 DefaultMailSaveOptions__1_U_____Query_String__U_____
 Subject__Test U_____Body____R Kontrola spojen_.
 _INetSendTo_____..U_E_____
 _INetCopyTo__U_D_____INetBlindCopyTo__U_____
 _\$\$StorageTo_____01U_____,_____\$\$Mailer__Lotus Notes Release 5.0.10 March 2 2, 2002U_____I____
 _\$\$MessageID__<OF24453AEA.FD86CE51-ONC1257C32.003CCFDD-C1257C32.003CE1F9@Loc
 alDomain>_U_E_____From__CN=ISLAMABAD/O=ZSMZVU_____
 _PostedDate__á<_2|%ÁU_____K____
 _Recipients_____)__CN=LNoper
 tor/OU=OIS/OU=Prague/O=MMZVVCN=ZOperator/O=ZSMZV@ZS
 MZV_U_____Encrypt__U_D_____\$\$Updat_______mail\islamaba.nsf_____

"Kontrola spojen" = "check the connected ..."



North Korean diplomatic stations

frequency	date	UTC	mode	frequency	date	UTC	mode
21323.6	2-10-2013	1123	DPRK-ARQ 600/600	16003	10-11-2013	2000	DPRK-ARQ 600/600
16003	6-11-2013	2300	DPRK-ARQ 600/600	14444	28-11-2013	1235	DPRK-ARQ 600/600
16003	8-11-2013	2300	DPRK-ARQ 600/600	16135	29-11-2013	0230	DPRK-ARQ 600/600
16320	10-11-2013	0800	DPRK-ARQ 600/600				



Egyptian diplomatic stations

Modes: SITOR-A 100/170 & Codan-9001

frequency	date	UTC	mode	remarks
16215	5-11-2013	1825	Codan 16 tone data and chirp	Egyptian embassy, Bamako "33303" msg to MFA Cairo "99908"
19501.7	14-11-2013	1210	SITOR-A 100/170	Egyptian Embassy, Bamako with hex offline crypto tfc to MFA Cairo headed "from: bamako"
22867.7	14-11-2013	1611	SITOR-A 100/170	Egyptian Embassy. Lagos with hex offline crypto to MFA Cairo on duplex link
11050	19-11-2013	0704	SITOR-A / Codan selcall	MFA Cairo clg embassy Bucharest "XBVX", CODAN-Selcall "11101" de "99911"
19246.7	26-11-2013	1340	SITOR-A/B 100/170	MFA Cairo clg Embassy Delhi "OOVP" in SITOR-A, then into Sitor-B msg
19344.7	29-11-2013	0810	SITOR-A 100/170	MFA Cairo clg embassy Islamabad, SITOR-A in Arabic, then into CODAN. Selcall "44405" to Cairo "99903"
19522	29-11-2013	0815	SITOR-A 100/170	MFA Cairo just SITOR-A in Arabic
19100	29-11-2013	0832	SITOR-A 100/170	MFA Cairo clg embassy Islamabad, CODAN selcall 44405
19100	29-11-2013	0911	SITOR-A 100/170	MFA Cairo clg embassy Luanda, CODAN selcall 33313
19077	29-11-2013	0932	SITOR-A 100/170	MFA Cairo clg embassy Abidjan "kkxo"
19100	29-11-2013	0940	SITOR-A 100/170	MFA Cairo clg embassy Abidjan "kkxo" after no joy on 19077 kHz. Also no joy on that channel.
19344.7	29-11-2013	0952	SITOR-A 100/170	Egyptian embassy? SITOR-A in Arabic



Cuban diplomatic stations

8096 kHz, 23-11, 1416 UTC, following a M08a transmission. Logged by Don Schimmel.

He writes: "One of my receivers was on 8096 kHz to check for 1400 sked of M08a when I heard Havana CLP1 calling CLP8, Cuban Embassy in Conakry GUI at 1416 UTC. Havana indicated he had short message and wanted CLP8 to QSY to phone on 13375 kHz. I checked that frequency but nil heard. It appeared that Havana also wanted CLP44, Cuban Embassy Harare, Zimbabwe to receive message but it is unknown if that station responded. I had not heard the CLP activity for several years.

Note: I can't vouch for 100% copy.

CLP8 DE CLP1 GRU 44 =

WURWI NTIGW INIMG AWDNG AIFDW MADDN DIGNU RGTUI TITRG NNRDI
UNAMU RUMUA IANUA WUMID DAMGW IRNUD IWUWU UMDAW UAGWG IUUTT
MMNWI DTUIN TUANI WA.RM IRITD WNNUI DGNRA DDMWR G.AUI UIUAR
IMMMW WAWTA DNWWG GANDG TGAWT UNRGG WW.UT UANGI TTGGU NNMRD
WMIGT ARMNN DGGDR TUNMT GUNAW URMIR GUARA IWARW MDUWD MTGTU
AAUGU AR

CLP8 DE CLP1 VOY QTC = VOY QTC K

= QTC QTC NR93 GR 105 =

Stopped here and nil mas heard. I did search the bands but nil heard."



Chinese diplomatic stations

Eddy Waters sent me his Chinese diplo logs from the past months. Thanks Eddy.

frequency	date	UTC	mode	remarks
18581	15-8-2013	0640	LSB 4+4 75	Chinese diplo. VWXR DE MX
11088	18-8-2013	1020	LSB 4+4 75	Chinese diplo.
11091	18-8-2013	1023	LSB 4+4 75	Chinese diplo.
10413	18-8-2013	1030	LSB 4+4 75	Chinese diplo.
10236	18-8-2013	1038	LSB 4+4 75	Chinese diplo.
10506	18-8-2013	1124	LSB 4+4 75	Chinese diplo.
11109	21-8-2013	1040	LSB 4+4 75	Chinese diplo.
10860	21-8-2013	1045	LSB 4+4 75	Chinese diplo.
13905	21-8-2013	1125	LSB 4+4 75	Chinese diplo.
23612.97	25-8-2013	0715	LSB 4+4 75	Chinese diplo. RHSA DE HJ
11061	26-8-2013	1200	LSB 4+4 75	Chinese diplo. XKGB 542938
11103	27-8-2013	1105	LSB 4+4 75	Chinese diplo.
10656	27-8-2013	1145	LSB 4+4 75	Chinese diplo.
10251	29-8-2013	1053	LSB 4+4 75	Chinese diplo. KCEH 320626
10143	29-8-2013	1115	LSB 4+4 75	Chinese diplo. CGKB 500250
10692	29-8-2013	1130	LSB 4+4 75	Chinese diplo.
8025	5-9-2013	1240	LSB 4+4 75	Chinese diplo. GCEB 205022
10239	5-9-2013	1325	LSB 4+4 75	Chinese diplo.
7758	23-9-2013	1325	LSB 4+4 75	Chinese diplo.
9174	10-10-2013	1125	LSB 4+4 75	Chinese diplo.
13410	16-10-2013	1110	LSB 4+4 75	Chinese diplo.
8013	24-10-2013	1114	LSB 4+4 75	Chinese diplo.
8046	26-10-2013	1057	LSB 4+4 75	Chinese diplo.
8073	6-11-2013	1137	LSB 4+4 75	Chinese diplo. 3FGs
10842	7-11-2013	1232	LSB 4+4 75	Chinese diplo.
7884	17-11-2013	1136	LSB 4+4 75	Chinese diplo.
10344	17-11-2013	1150	LSB 4+4 75	Chinese diplo.
10392	17-11-2013	1207	LSB 4+4 75	Chinese diplo.
10892	17-11-2013	1212	LSB 4+4 75	Chinese diplo.
18003	20-11-2013	0800	LSB 4+4 75	Chinese diplo.
7818	24-11-2013	1217	LSB 4+4 75	Chinese diplo. XKGB 965100
7740	25-11-2013	1024	LSB 4+4 75	Chinese diplo.
7794	27-11-2013	1010	LSB 4+4 75	Chinese Diplo
8040	27-11-2013	1010	LSB 4+4 75	Chinese Diplo
7923	29-11-2013	1155	LSB 4+4 75	Chinese diplo.
7716	29-11-2013	1205	LSB 4+4 75	Chinese diplo.

UTILITY ROUND-UP



Jammers

9920 kHz, 04-11, 1211 UTC: Vietnamese Jammer vs FEBC Radio



Commander Bunny

Chris Smolinski mailed us the following:

The following series of numbers were transmitted on 6955 kHz AM on 10-11 at 1527 UTC:

6 15 1 8 20 7 14 9 4 14 5 16 13 9

16 4 13 3 25 14 14 21 2 18 15 6 20 14 5 4 9 19 5 18 16

15 12 4 9 19 19 25 5 11 14 15 13 1 9 1 9 1 9

I suspect that it is 1) a simple substitution cipher and 2) mostly likely a spoof vs a real numbers station (but you never know). Anyone care to take a stab at decoding it?

John Marchand tried to decode it and he did a good job. John says

"It's definitely a substitution cipher, but it looks as though some of the corresponding letter / number pairs are shifted differently depending on where they are in the sequence. It's also possible that some of the numbers were transmitted or copied incorrectly; notes on that below.

Where a=1, z=26, sequence is straight-through:

f o a h t g n i d n e p m i

6 15 1 8 20 7 14 9 4 14 5 16 13 9

Translated: 'thaof impending'. Suspect partial transmit / copy.

16 4 13 3 25 14 14 21 2 18 15 6 20 14 5 4 9 19 5 18 16

p d m c y n n u b r o f t n e d i s e r p

Translated: CMD BUNNY FOR PRESIDENT. Suspect that first number should be '18' to give first word 'cmdr', the abbreviation for 'commander'.

p l d i s s y e k n o m a i a i a i a i

15 12 4 9 19 19 25 5 11 14 15 13 1 9 1 9 1 9 1 9

Translated: 'iaiaiaia monkeys sidlp'. Suspect that 'iaiaiaia' should translate to, 'ha ha ha ha,' which would be in keeping with the tone of previous CB broadcasts.

It's difficult to believe that '9' would have been mis-copied for '8' (which would give 'h', and fit the pattern hypothesized above) in that sequence, so perhaps this was a transmission where the wrong cipher text or mis-ciphered text was sent by mistake. Given the plain English words appearing elsewhere in the sequences, this seems at least plausible. Looks like the infamous Commander Bunny strikes again..... (grin)"



Unid 10-minutes stations

JPL found 3 active frequencies of the still unid 10-minutes network. Nice job !

3772 kHz, 30-11, 1114 UTC: A4JC repeated till 1120 UTC

3285 kHz, 30-11, 1125 UTC: 4KUE repeated till 1125 UTC //3958

3958 kHz, 30-11, 1125 UTC: 4KUE repeated till 1125 UTC //3285



Unid stations

Michel copied a voice morse transmission from unid African stations at 24563.5 kHz, 03-11, 0750 UTC

Echo One heard an Unid on 7377 kHz, 13-11, 1705 UTC, ended at 1717 UTC.

Very fast CW, software indicated over 30 WPM, message containing 5F each repeated once "16286 16286 28583 28583 94874 94874 39178 39178" etc. Signal located right between BCs from Radio Romania and China international. Signed off with "109 109 00000 " though it was decoded with Fldigi so there might have been some error there. Managed to capture some 140 five figure groups before it ended.



Emergency Action Messages & Skyking Messages

A lot of EAM and Skyking logs mainly from Dave moonlight0551 and Topol.

Frequencies: 4724//6712//8992//11175 kHz

04-11	1530	XU5GB2	Mainsail. EAM 156 characters
04-11	1530	XU5GB2	Mainsail. EAM 156 character
04-11	1535	XUW3E4	Mainsail. EAM
04-11	1535	XUW3E4	Mainsail. EAM 55 characters
04-11	1540	XUSN2Q	Mainsail. EAM 55 characters
06-11	1205	ISA 05 J?	Mainsail Skyking
06-11	1259	RRP 59 UQ	Mainsail Skyking
06-11	1259	XHD 59 UQ	Mainsail Skyking
06-11	1300	450 00 PC	Mainsail Skyking disregard
06-11	1301	450 01 PC	Mainsail Skyking
06-11	1606	LO6 06 IY	Mainsail Skyking
06-11	1610	W7UHGM	Mainsail 30 chr EAM
06-11	1618	W7DFSO	Mainsail for BLADES 30 chr EAM
06-11	1620	W7HQIC	Mainsail 30 chr EAM
06-11	1702	W7H3X7	Mainsail 39 chr EAM
06-11	1726	ZCURQY	Mainsail 30 chr EAM(looks like we have a new prefix ZC)
06-11	1730	ZCWLMM	Mainsail 30 chr EAM
06-11	1733	RRP 33 GG	Mainsail Skyking
06-11	1733	ZCURQY	repeat
06-11	1759	ZCWLMM	repeat
06-11	1801	ZCURQY	repeat
06-11	1813	ZC?XBS	Mainsail 30 chr EAM
06-11	2033	ZCAR?Y	Mainsail 30 chr EAM
06-11	2035	ZC75K?	Mainsail 30 chr EAM

06-11	2037	ZCFTVH	Mainsail 30 chr EAM
14-11	1041	EGL 41 LU	Skyking
14-11	1201	JIW 01 OA	Mainsail Skyking
14-11	1233	6LY 33 EM	Skyking
14-11	1308	J7T 08 XX	Mainsail Skyking
14-11	1403	PKYWJR	Mainsail for SPRING NV7NIOUWKO6N7ELD3PP27YZP
14-11	1413	PL3L2F	Mainsail for SPRING HHRG6EDBT6B4Y7YNWRUONJL
14-11	1418	PK7C6S	Mainsail for SPRING 4LUQ12O2DKPHBUWADLE3G5ZG (Item 28 (Z) may have been 2)
14-11	1443	BXC 43 ?S	Mainsail Skyking
14-11	1555	ZC6?M6	Mainsail 30 chr EAM(badly distorted)
14-11	1648	PKGORR	Mainsail 50 chr EAM PCLPEMQHRUXQG3SDVG3SNPK6WT5MDVXQNKJG5DAKQPRP
14-11	1656	PK3YDC	Mainsail for Gunship HOOP4WQY7OLF6MWFKZZPWOF
14-11	1727	PKIXXP	Mainsail 39 chr EAM EUAVYNYNWKDOAAUVSNVLYTYS6V4BVG66D
14-11	1809	PKSDO6	Mainsail for SPRING 30 chr EAM UBOAB6TZIYYRDYB4IPXVFGNQ
14-11	1820	WYP 20 CN	Mainsail Skyking
14-11	1823	PK7ULU	Mainsail for SPRING 30 chr EAM
14-11	1837	YEK 37 UG	Mainsail Skyking
14-11	1839	ZCTB5Y	Mainsail 30 chr EAM QC7F4ELL76355UEZDU3VWHZ7
14-11	1844	PKDR5D	Mainsail for SPRING 30 chr EAM M67E2R2YYBIMZHC3FLOBM47C
14-11	1903	PK6YGN	Mainsail for SPRING 30 chr EAM
14-11	1906	PK6YGN	Mainsail repeat
14-11	1944	PK5HQE	Mainsail for SPRING 30 chr EAM BT6LD4477HWYZ5MEAMVQZZV2
14-11	1950	PK35ZK	Mainsail for SPRING 30 chr EAM ECBGKG2JGKJDRSGCF7EU7M7C
14-11	1954	ZCUI4T	Mainsail 30 chr EAM HHNOUMDSOQGIXYNJPGSGTA2L
14-11	2000	ZCUI4T	repeat HHNOUMDSOQGIXYNJPGSGTA2L
14-11	2030	ZCUI4T	repeat HHNOUMDSOQGIXYNJPGSGTA2L
14-11	2032	ZCO3N2	Mainsail 30 chr EAM
14-11	2038	PKTV4L	Mainsail for SPRING 30 chr EAM NJC6GO6HA77?TSSPUOLSUVBV
14-11	2059	ZCO3N2	7PK56MG4IIZA4VZA5OTOSUUT
14-11	2102	PKTRAS	GM52W3EIXTGUPNKKHN7KDALF for Spring
14-11	2106	PKTRAS	GM52W3EIXTGUPNKKHN7KDALF for Spring
14-11	2108	ZCUI4T	HHNOUMDSOQGIXYNJPGSGTA2L
14-11	2200	ZCO3N2	7PK56MG4IIZA4VZA5OTOSUUT
14-11	2205	6LY 05 MU	Skyking
14-11	2232	ZCO3N2	7PK56MG4IIZA4VZA5OTOSUUT
15-11	1322	GDT 22 MN	Skyking
15-11	1347	YJR 46 SV	Skyking
17-11	1154	WF6 54 FV	Mainsail Skyking
17-11	1333	PLUOHG	Mainsail for HIGH FASHION 30 chr EAM
17-11	1403	PKVR5P	Mainsail for HIGH FASHION 30 chr EAM
17-11	1448	GBC 48 WO	Mainsail Skyking
17-11	1508	ZC4M64	Mainsail 30 chr EAM
17-11	1519	ZCIY44	Mainsail 30 chr EAM
17-11	1527	ZC3BDH	Mainsail 30 chr EAM
17-11	1529	ZCIY44	repeat
17-11	1529	ZC4M63	repeat
17-11	1600	ZC3BDH	repeat then disregard.
17-11	1625	PKTOUG	Mainsail for HIGH FASHION 30 chr EAM
17-11	1703	PKF6WS	Mainsail for HIGH FASHION 30 chr EAM
17-11	1746	PKZSQX	Mainsail for HIGH FASHION 30 chr EAM
17-11	1753	PKNOP6	Mainsail 30 chr EAM
17-11	1830	ACP7RS	Mainsail 30 chr EAM
17-11	1837	PKR5HB	Mainsail for HIGH FASHION 30 chr EAM
19-11	1100	XU4EUV	RPYFER5ILGVLUY4U6KK6CNAABEE73OZQYEACYYQQQTS2VC72WDK
19-11	1157	YS3 57 DO	Mainsail Skyking
19-11	1234	3EW 34 OG	Mainsail Skyking
19-11	1306	GUE 06 PG	Mainsail Skyking
19-11	1347	PKYITS	Mainsail for REACH 10 30 chr EAM
19-11	1425	ZCIDEK	Mainsail 30 chr EAM
19-11	1518	T43 18 PS	Mainsail Skyking

19-11	1530	ZCL6OB	Mainsail 30 chr EAM LRZWFZHDXGOGLDHXG3AOFZEW
19-11	1538	ZCD6DW	Mainsail 30 chr EAM HZ3ZAE6F3PU3XKJ3I4QR2JS3
19-11	1555	ZCOXOJ	Mainsail 30 chr EAM 4BN2JPXS6ARVQUGLOVMJ47BB
19-11	1558	ZCAA3X	Mainsail 30 chr EAM LC4ZJM5PERL6JCC6UJQLR7JO
19-11	1600	XCOXOJ	repeat
19-11	1602	ZCD6DW	repeat
19-11	1656	PKN7JR	Mainsail 30 chr EAM
19-11	1702	PKNSU4	Mainsail for METICULOUS 30 chr EAM RGVBKHS AU3F4BWGGWNJ3IZ2A
19-11	1735	PKRFG3	Mainsail 30 chr EAM ZUYSKHLDNWYGW6FOQFZIANI
19-11	1803	ZCBRUO	Mainsail 30 chr EAM
19-11	1806	ZC7KTN	Mainsail 30 chr EAM
19-11	1812	ZC4FL3	Mainsail 30 chr EAM
19-11	1820	OOJ 20 BZ	Mainsail Skyking
19-11	1831	PKSOBB	Mainsail 30 chr EAM
19-11	1835	ZC4FL3	repeat
19-11	1837	ZC7KTN	repeat
19-11	1839	ZCBRUO	repeat
19-11	1849	HDD 49 ??	Mainsail Skyking
19-11	1900	ZC4FL3	preamble then disregard.
19-11	1902	ZC4RDN	Mainsail 30 chr EAM
19-11	1906	ZCUJWA	Mainsail 30 chr EAM
19-11	1908	ZC4FL3	repeat
19-11	1910	ZC7KTN	repeat
19-11	1912	ZCBRUO	repeat
19-11	1919	ZCLSPT	Mainsail 30 chr EAM
19-11	1933	ZCT5YE	Mainsail 30 chr EAM
19-11	1949	ZCPVZ5	Mainsail 30 chr EAM
19-11	2047	XU4A3W	disregard after preamble
19-11	2049	XUVA3W	Mainsail 64 chr EAM
24-11	1503	E3ZQXW	Mainsail for BENGAL TIGER 30 chr EAM
24-11	1549	ZCQ3CX	Mainsail 30 chr EAM
24-11	1600	ZCK4KV	Mainsail 30 chr EAM
24-11	1602	ZC7DF3	Mainsail 30 chr EAM
24-11	1604	ZCQ3CX	Mainsail 30 chr EAM
24-11	1318	WID 18 AU	Mainsail Skyking
24-11	1420	GKT 21 SQ	Mainsail Skyking
24-11	1145	TJB 45 NZ	Mainsail Skyking
25-11	1210	SLG 10 RQ	Mainsail Skyking
25-11	1211	HNH11 RQ	Mainsail Skyking
25-11	1334	NIX 34 JZ	Mainsail Skyking
25-11	1351	IACKCN	Mainsail 30 chr EAM(looks like we have a new preamble IA replaces ZC)
25-11	1400	IACKCN	repeat
25-11	1612	IA4XVO	Mainsail 30 chr EAM
25-11	1624	7CP 24 PP	Mainsail Skyking
25-11	1644	BF7 44 AU	Mainsail Skyking
25-11	1700	IAVMZK	Mainsail 30 chr EAM
25-11	1707	IAQBS5	Mainsail 30 chr EAM
25-11	1726	IA4Q5M	Mainsail 30 chr EAM
25-11	1807	IATEYR	Mainsail 30 chr EAM
25-11	2039	IADHIR	Mainsail 30 chr EAM
30-11	0741	IAM3XS	Mainsail 30 chr EAM
30-11	0747	IAFJPZ	Mainsail 30 chr EAM

RUSSIAN MILITARY TRANSCRIPTS



RMv/RNv/RNAv/RAv **Russian military stations**

Frequency: various

Mode: USB / voice

RAv

8131 kHz, 04-11, 1850 UTC:

Dialog (unid O/M Russian) & Katolik (unid-O/M Russian w/94115 (poss TU-160) w/msg: 102/187/141/160/112/111/136.

6685 kHz, 04-11, 2159 UTC:

Korsar (Russian Air Force 6985th Aviation Base Pskov) calling 82013 (Russian AF AN-124) w/no response. This acft supported the two TU-160s that flew to Venezuela last week. At 2247 Korsar w/82013 (not heard) who reports 5 hrs flt left passing point ITON (spelled) at FL290 w/fuel 60 tons and ETA landing is 0300 UTC.

11360 kHz, 05-11

- 1147 Proselok (Russian Air Force 566th Military Transport Aviation Regiment) w/76604 (IL-75MD) reporting landing at (missed) at 1545 MSK.
- 1150 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/78815 (IL-76MD) reporting landing at Tver at 1550 MSK w/fuel 41 tons.
- 1237 Korsar in radio checks w/76748 (IL-76MD). At 1334 76748 tries contacting Korsar & Davlenie (Russian Air Force 6958th Aviation Base Taganrog) w/no joy. At 1413 76748 advises Korsar they have 1 hour flt left w/fuel 30 tons.
- 1254 Korsar w/76619 (IL-76MD) reporting landing at Pskov at 1654 MSK.
- 1337 Korsar in radio checks w/76714 (IL-76MD)

6685 kHz, 08-11, 1251 UTC:

Polis (Russian Air Force 6956th Aviation Base Orenburg) w/??815 (prob IL-76MD) reporting landing at (missed) at 1645 MSK.

11360 kHz, 08-11

- 1403 Chkalovskij (Russian AB, Moscow) w/85594 (TU-154B) reporting depoarure from point 175 at 1520 MSK and EAT landing at point 145 at (missed) w/fuel 15 tons. Chkalovskij relays flt info to Proselok (Russian Air Force 566th Military Transport Aviation Regiment, Bryansk).
- 1408 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/75719 (IL-76MD) reporting departure from (missed) FL260 and fuel 25 tons. .Next is Tver. Requests relay of flt info to Klarnetist (Russian Air Force 6955th Aviation Base Migalovo/Tver).
- 1641 Proselok w/76734 (IL-76MD---not heard). Proselok has trouble maintaining contact.

11360 kHz, 13-11

- 1305 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/82013 (Russian AF AN-124) reporting departure from Minsk at 1227 UTC This is same acft that supported the TU-160s on their deployment to Venezuela last month.
- 1314 Acft 76743 (IL-76MD) calling Korsar & Davlenie (Russian Air Force 6958th Aviation Base Taganrog) w/no response.

11360 kHz, 14-11

- 1225 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/76743 (IL-76MD) reporting departure from Ruchnoj (sounds like) at 1603 MSK w/fuel 34 tons, cargo 3 tons and 33 personnel. Next is Kvartet (Taganrog AB). 76743 requests flt info be relayed to Davlenie (Russian Air Force 6958th Aviation Base Taganrog). At 1409 76743 reports landing at Kvartet at 1809 MSK
- 1531 Korsar w/76725 (IL-76MD--not heard) reporting departure from (?Bartofskij?) at 1709 MSK w/fuel 40 tons. Next is Orenburg. At 1414 76725 (not heard) reports 1 hour flt remaining w/fuel 20 tons
- 1345 Korsar w/82013 (Russian AF AN-124) reporting departure from Kandahar at 1306 UTC w/fuel 51 tons. Next is Dubai.

6685 kHz, 14-11

- 1538 Acft 76724 (IL-76MD) calling Korsar, Davelenie & Klarnetist (Russian Air Force 6955th Aviation Base Migalovo/Tver) w/no responses.
- 1424 Korsar w/76733 (IL-76MD) reporting they are in the "control area

11360 kHz, 15-11

- 1157 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/76724 (IL-76MD) reporting departure from (missed) at 1555 MSK at alt 2,000 mtrs & w/fuel 30 tons
- 1202 Korsar w/09344 (Russian AF AN-22A) reporting departure from Yerevan at 1505 MSK & at alt 2,100 mtrs.
- 1217 Korsar w/76770 reporting departure from (missed) at 1545 MSK and next is landing at Chkalovskij (Russian AB, Moscow). Flt info relayed to Proselok (Russian Air Force 566th Military Transport Aviation Regiment Bryansk). At 1250 76770 reports 1 hr flt time & passing point KANON w/fuel 57 tons
- 1305 Korsar w/82014 (Russian AF AN-124---not heard) reporting departure from (?Bomaku?) at 1005 UTC w/77 tons cargo at FL310 w/fuel 44 tons.
- 1309 Korsar w/76553 (IL-76MD-not heard) w/radio check
- 1324 Klarnetist (Russian Air Force 6955th Aviation Base Migalovo/Tver) w/76617 (IL-76MD-weak) w/radio check

11360 kHz, 18-11, 1226 UTC:

Korsar (Russian Air Force 6985th Aviation Base Pskov) calling 09344 (Russian AF AN-22A) w/no response

11360 kHz, 20-11,

- 1538 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/86776 (IL-76MD) (some of flt info missed) at alt 1800 mtrs
- 1621 Korsar w/82039 (Russian AF AN-124-not heard) reporting departure from Sochi at alt 2800 mtrs
- 1625 Korsar w/76743 (IL-76MD) reporting departure from (missed) w/8 tons cargo. Next is Taganrog
- 1801 Acft 78796 (IL-76MD) calling Proselok (Russian Air Force 566th Military Transport Aviation Regiment Bryansk) w/no response

RNAV**11354 kHz, 05-11, 1522 UTC:**

Priboj (Naval Air Transports Central Sector, Moscow) w/(??)421 (poss Russian Navy AN-12)--caught at sign off. Novator (Naval Air Transports Northern Sector, Murmansk) also QSL's for flt info

11354 kHz, 07-11, 1227 UTC:

Priboj (Naval Air Transports Central Sector, Moscow) w/75215 (Russian Navy) reporting passing point (missed) at 1225 UTC at FL250. Priboj relays flt info to Novator (Naval Air Transports Northern Sector, Murmansk) & Kraket (Naval Air Transports Western Sector, Kaliningrad). At 1305 75215 reports at FL350 w/fuel 15400 kgs.

11354 kHz, 12-11

- 1201 Priboj (Naval Air Transports Central Sector, Moscow) & Kraket (Naval Air Transports Western Sector, Kaliningrad) w/47573 (Russian Navy AN-26) reporting ETA Anapa at 1250 UTC.
- 1233 Priboj: 1233 USB w/75208 (Russian Navy IL-18RT). Caught at sign off.
- 1456 Priboj: 1500 USB w/75208 (Russian Navy IL-18RT) reporting passing Petrovskaya at 1456 UTC at 7,000 mtrs w/fuel 12000 kgs,

11354 kHz, 14-11

- 1159 Priboj (Naval Air Transports Central Sector, Moscow) w/47521 (Russian Navy AN-26) reporting alt of 3,000 mtrs w/fuel 3000 kgs. Priboj & Novator (Naval Air Transports Northern Sector, Murmansk): 1258 USB w/47521 (Russian Navy AN-26) reporting position 5619N/3743E at 1255 UTC at alt 6,000 mtrs w/fuel 2000 kgs. ETA landing at Kipelovo is 1345 UTC. At 1608 47521 calls Priboj & Novator w/no responses. Kraket finally responds and 47521 reports position as (missed) at 1606 UTC at alt 6,000 mtrs w/fuel 3800 kgs.
- 1205 Priboj w/75208 (Russian Navy IL-18RT) reporting landing at Ostafyevo at 1202 UTC. At 1602 75208 reports departure from Ostafyevo at 1555 UTC w/fuel 15,500 kgs and ETA landing at Ryzan at 1630 UTC.
- 1351 Priboj w/47564 ((Russian Navy AN-26)) reporting departure from Anapa at 1345 UTC w/fuel 5300 kgs and ETA landing at Eisk is 1555 UTC. Priboj relays flt info to Kraket (Naval Air Transports Western Sector, Kaliningrad).
- 1227 Priboj (Naval Air Transports Central Sector, Moscow) w/47573 (Russian Navy AN-26) reporting passing point (?Asia?) at 1225 UTC at alt 3950 mtrs w/fuel 4300 kgs. Priboj relays info to Kraket (Naval Air Transports Western Sector, Kaliningrad). At 1315 47573 reports ETA landing at Rostov at 1540 UTC

11354 kHz, 10-11:

- 1509 Priboj (Naval Air Transports Central Sector, Moscow) USB w/47525 (Russian Navy AN-26) reporting position as 5750N/??49E at 1509 UTC flt alt 4900 mtrs fuel 4200 kgs. ETA landing at Ostafyevo at 1600 UTC
- 1530 Priboj w/47573 (Russian Navy AN-26-not heard) reporting departure from Anapa at 1515 UTC w/fuel 5600 kgs and ETA landing at Sochi at 1615 UTC. Priboj relays flt info to Kraket (Naval Air Transports Western Sector, Kaliningrad)

8816 kHz, 18-11

0628 rjf94 rjc38 de 12415 qth 5649 6920 qtr 0627 qbg 6600 k - qth usss 215090 qtr 0728 qbg 6700 qbd 7200 k - qqm XUPP 0821 k

1305 rjf94 rjc38 de 47530 qth 6847 4919 qtr 1300 qre XLDA 1400 k qqm XLDA 1400 sk

rjf94 rjc38 de 75208 qth 6001 3745 qbd 12600 qbg 7900 k - qql ULPE 1457 qbd 10000 qre XLMV 1610 k

RADv**5654 kHz, 13-11, 1558 UTC:**

Loda-40 (sounds like---O/M Russian) w/Karlota-57 (O/M Russian) advising that (it) is at alt 2,000 and on course. Poss Russian Navy/Air Defense.

**M32****Russian Military CW Stations****5430 kHz, 01-11, 0233 UTC**

VV CUK DE KV6A K

VV CUK DE KV6A K

R QSA1 NIL SK

VV HS1S DE KV6A K

VV KYF4 DE KV6A K

VV HS1S DE KV6A K

VV HS1S DE KV6A K

R QSA1 K

NIL SK

VV KYF4 DE KV6A K

R QSA2 NIL SK

14411 kHz, 14-11, 0839 UTC

XXX XXX WEGI WEGI 77906 52078 REKTORSTWO 7918 0965

5480 kHz, 16-11, 1119 UTC

XV 9SXV RPT ADS K

LMNJ DE 9SXV RPT ADS K

LMNJ DE JVM3 R 615 K

LMNJ DE 5ILR R 615 K

LMNJ DE

LMNJ DE 6JY2 R 615 K

6832 kHz, 16-11, 1633 UTC

GABS DE AM50 QTC K.

573 93 16 1959 573 =

479 = 67981 93160 78452 52046 71893 92380 5.487 6.. (Cont'd)

4143 kHz, 29-11, 2035 UTC, i.p.

NCMK 908 34 30 0030 908 =

ZDC 724 =

01953 30276 79243 70686 05986 27374 98716 22098 54666 72252

30624 02740 85752 09570 95352 70322 66897 45608 56478 59554

87285 60325 74558 54440 42612 14415 99348 25474 37727 80756

30030 631 K

= 60325 K

IRFJ DE NCMK QTC K

IRFJ DE NCMK QTC K

NCMK 376 34 30 0037 376 = ZDC 724 = 26579 43264 13942 48379 (Cont'd)

3348 kHz, 29-11, 2302 UTC

PXSN DE SRBW K
R K
SGX7 DE SRBW K
R K
LU7G DE SRBW K
R K
KZXO DE SRBW K
R K
TM6D DE SRBW K
R K
LQAL DE SRBW K
Z... DE SRBW K
R K

3853 kHz, 29-11, 2307 UTC, i.p.

366 =
4488 9650 =
560 =
735 735 402 963 366 =
3922 2070 =
5660 =
RPT =
805 805 402 963 366 =
4488 9650 =
560 =
735735 402 963 36 6 =
392 2070 =
560 K (2309z)
..V OK R K
78 NR OK R K

8116 kHz, 29-11, 2325 UTC

LW2P DE NU1E (repeated for ca 10 minutes)

3293 kHz, 29-11

030 = 388 =
6485 6326 44866 01044 EEE 4866 0104 1434 5427 9
= RPT TXT
6485 6326 4866 0104 1434 5427 9342 8654 5454 2978 6970
1260 7.48 2376 4582 4206 8836 8836 EEE 4206 8836 8438
1312 6828 0120 388 K (2120z)

6776 kHz, 29-11, 2144 UTC

C2AR QTC 179 38 10135 179 =



M32a
Russian Navy
Voyenno-Morskoy Flot Rossii

I received an interesting note from Trond. He writes "You may remember the Russian naval activity in September with Peter the Great and its support ships and RosAtom icebreakers heading for the New Siberian Islands. I have plotted my known radio related locations for that area on a GE map"



The Russian Navy's long-distance cruise in the Subarctic along the Northern Sea Route has become a flagship mission in the region abandoned by the military after the fall of the USSR. Now the once deactivated infrastructure will resume operation.

On Saturday, Russia's Defense Ministry officially announced return of Russia's military to the Subarctic region. The statement was made to mark the arrival of a task group of 10 warships and support vessels to the western coast of Kotelny Island in the Novosibirsk (New Siberian Islands) Archipelago.

The task group is headed by Russia's most powerful battleship and the flagship of the Northern Fleet, cruiser Peter the Great (Pyotr Veliky). The group is accompanied by four nuclear icebreakers facilitating the passage through areas with particularly thick ice. (<http://rt.com/news/russian-arctic-navy-restitution-863/>).

"For the first time ever, all Russia's nuclear surface ships – heavy nuclear missile cruiser Peter the Great and nuclear icebreakers Yamal, Vaigach, Taimyr and 50 Let Pobedy, were combined to perform a joint task," Commander Admiral Viktor Chirkov told journalists Friday.

The task group left the port of Severomorsk and has already covered 2,000 nautical miles, crossing the Barents, Kara and Laptev seas.



Notes regarding the logs below.

RLD69: 016 BDK 45 Georgy Pobedonosecz.
 RHQ33: Recently this station has been active on 5009, 8014, 9396, 10309, 12521, 14451 and 14896, but not often heard on 8345/12464. Strange, if this is a regular Black Sea Fleet ship/naval unit !

I completely forgot to mention Tony (Topol) in the last few newsletters. Sorry man. Here are again a number of logs.

8684 kHz, 04-11

1622 RCV: Sevastopol Naval Radio. Ends 196-group msg: QChGCH ChTPWU ÄEÄIO HEUÜD PRÄOY = RCV + Nothing further.
 1838 RHQ33: Unid Russian naval unit/ship sends urgent qtc to RCV, Black Sea HQ; "rhq33 899 2t2 4 194t 899 = rkt= mmmmm be ii =rkt= mmmmm bkshv cltp ... then fades and drowning in qrm/qrn at 1842, later frequent contact between RHQ33 and RCV on 7801, 5129 and this channel

5129 kHz, 04-11, 2102 UTC: RHQ33: Russian Warship 2102 CW wkg RCV. Sending 5LG messages.

11115 kHz, 05-11, 0832 UTC:

RIT: Russian Northern Fleet HQ, Severomorsk clg RLD69 setting up of secure voice link, but suggest higher frequency then requested by RLD69 (QYT4 QLS)

12464 kHz, 05-11, 0901 UTC:

RLD69: Unid Russian navy ship/unit setting up new secure voice link with RIT, asks for operational frequency (RLD69 QYT4 QSX?), RIT suggest 16603. Later new link on 12398 and 16615

8345 kHz, 09-11

1838 RBIZ: Russian Navy Ship PM-138. rcv de rbiz 129 3 9 2235 129 = 59660 92210 09002 = rbiz k
 1847 RMUW: Russian Navy Tug Shakter. rcv de rmuw 614 3 9 2235 614 = 59660 92205 09002 = rmuw k

12464 kHz, 12-11, 1354 UTC:

RFH70: Russian Destroyer Smetlivy ... QMG1 K. RCV de RFH70 R K ... QDW 5094 K. (QMG-related to faulty equipment).

8345 kHz, 12-11

0501 VVV RCV DE RMUW QSA? QTC
 0502 RMUW 575 32 12 0850 575 = SML =
 53?92 41572 50417 87858 45117 25798 04098 72173 11618 29449 59462
 75747 71599 27606 53928 03485 12199 27786 46947 11719 12184 18501
 21720 89030 85253 22622 31922 11224 01658 21203 12030 = + RMUW

4537.5 kHz, 13-11

1801 VVV RJD99 DE RBE99 QSA? QTC
 1803 RBE99 14? 17 13 2201 14? = FOR RJH74 RJD90 = 13181 99647 10365 22200
[64.7N 36.5E Hove to http://goo.gl/maps/jJYff](http://goo.gl/maps/jJYff)
 1805 VVV RJD99 DE RAG43 QSA? QTC
 1806 RAG43 790 16 13 2200 790 = FOR RJH74 = 13181 99666 10342 22200
[66.6N 34.2E Hove to http://goo.gl/maps/9G55p](http://goo.gl/maps/9G55p)
 2005 VVV RJD99 DE RBE99 QSA? QTC
 2006 RBE99 795 2? 14 0001 795 =FOR RJD99 = (sends message, too weak to copy)
 2102 VVV RJD99 DE RBE99 QSA? QTC
 2105 RBE99 868 17 14 0101 868 = FOR RJH74 RJD90 = 13211 99647 10365 22200
[64.7N 36.5E Hove to http://goo.gl/maps/jJYff](http://goo.gl/maps/jJYff)

8345 kHz, 13-11, 1812 UTC: VVV RCV DE RLD69 QSA?**4537.5 kHz, 14-11**

0000 VVV RJD99 DE RAG43 QSA? QTC
 0001 VVV RJD99 DE RJU49 QSA? QTC
 0002 RJU49 438 22 14 0400 438 = FOR RJD90 ????? = 14001 99654 10373 22212
[65.4N 37.3E heading NE @ 6-10kts http://goo.gl/maps/WGmo9](http://goo.gl/maps/WGmo9)

12464 kHz, 14-11

1105 RCV DE RFH70 QYT4 QWH 9192 QSA?
 1447 VVV RCV DE RMUW QSA? QTC
 1448 RMUW 572 ?2 14 1825 572 = SML = 49229 04901 76550 14049 = + RMUW

12432 kHz, 14-11

1527 ZZU 8014 8014 K
 1530 ZZU 8014 8014 K
 1538 ZCS ZCS ZCS ZZD2 ZZU ?
 1538 ZZD2

8345 kHz, 14-11

1722 RCV DE RLD69
 1723 RCV DE RLD69 QYT4 QSX 6452
 1726 RCV DE RLD69 QYT4 QSX 6641
 1756 RLD69 OK QYT4 QWH 6238 QSX 7195
 1802 VVV RMP DE RMDT
 1803 VVV RCV DE RMUW QSA? QTC
 1804 RMUW 771 17 14 2200 771 = SML FOR RJE73 RJH45 = 14181 99380 10164 22232
[38.0N 16.4E heading SE @ 6-10kts http://goo.gl/maps/qR1hl](http://goo.gl/maps/qR1hl)
 1810 VVV RIW DE RMC99 QSA? QTC
 1811 RMC99 862 40 14 2206 862 = SML FOR RBDE = 11111 09116 60210 14037 = + RMC99

8345 kHz, 15-11

1718 VVV RCV DE RFH70 QSA?
 1719 RCV DE RFH70 QYT4 QSX 9194/10984
 1722 RFH70 OK QYT4 QWH 8340
 1725 RCV DE RFH70 QYT4 QSA?
 1731 VVV RCV DE RLD69 QSA?
 1750 VVV RCV DE RLD69 QSA?
 1815 VVV RCV DE RBIZ QSA? QTC
 1816 RBIZ 860 17 15 2200 860 = FOR RJE73 RJH45 = 15181 99349 10353 22200
[Hove to Tartus](#)
 1822 VVV RCV DE RMUW QSA? QTC
 1823 RMUW 809 1? 15 2200 809 = SML FOR RJE73 RJH74 = 15181 99375 10164 22232
[37.5N 16.4E Heading SE @ 6-10kts http://goo.gl/maps/V08yU](http://goo.gl/maps/V08yU)

4537.5 kHz, 15-11

1803 VVV RJD99 DE RAG43 QSA? QTC
1804 RAG43 935 16 15 2200 935 =SML FOR RJH74 = 15181 99666 10347 22200
66.6N 34.7E Hove to (in land, but rounded lat/long) <http://goo.gl/maps/vtoLM>
1807 VVV RJD99 DE RBE99 QSA? QTC
1808 RBE99 457 17 15 2201 457 = FOR RJH74 RJD90 = 15181 99651 10376 22212
65.1N 37.6E heading NE @ 6-10kts <http://goo.gl/maps/8k9OE>
1810 VVV RJD99 DE RJU49 QSA? QTC
1811 RJU49 919 1? 15 2200 919 = FOR RJD90 RJH74 = 15181 99652 10386 22232
65.2N 38.6E heading SE @ 6-10kts <http://goo.gl/maps/ZeHWG>

8345 kHz, 19-11

0010 VVV RCV DE RMUW QSA? QTC
0012 RMUW 115 16 29 0400 115 = SML FOR RJH?? RJH45 = 29001 99442 10368 22222
44.2N 36.8E heading E @ 6-10kts <http://goo.gl/maps/vQIFB>
0228 VVV RCV DE RCJG QSA? QTC
0229 RCJG 281 3 29 0620 281 = 13972 90530 29002 = + RCJG
0231 RCV DE RCJG QSL 979
0232 RCV DE RCJG QRV
0429 VVV RCV DE RFH70
0430 RCV DE RFH70 QYT4 QSL 7748/9192

8345 kHz, 24-11

0236 VVV RCV DE RMUW QSA? QTC
0237 RMUW 414 53 24 0627 414 = SML = 83696 48218 83462 24051 = + RMUW

12464 kHz, 24-11

1205 VVV RCV DE RMUG QSA? QTC
1206 RMUW 264 17 24 1600 264 = SML FOR RJE73 RJH45 = 24121 99351 10305 22263
1208 Very faint presumed RIR98 with RCV

8345 kHz, 26-11

1804 RBIZ 26181 99349 10358 22200
1810 VVV RCV DE RHN85 QSA? (sets up QYT4)
2304 RCV DE RMUW QSA1 QRN QRV
2306 RMUW NR 302 RPT AA7
2311 RMUW NR 302 RPT 2 23
2312 RMUW NR 302 RPT 2 23
2313 RMUW QSL 302

8345 kHz, 27-11

0004 VVV RCV DE RMUW QSA? QTC
0005 RMUW 297 16 27 0400 297 = SML FOR RJE73 RJH45 = 27001 99407 10281 22222
0009 VVV RCV DE RHN85 QSA?
0010 RMUW 181 3 27 0350 181 = 63432 70320 27002 = + RMUW
0017 VVV RCV DE RHN85 QSA? (sets up QYT4)
0236 RCV DE RFH70 QSA3 QYT4 QSL 5472/6443
0432 RCV DE RFH70 QYT4 QWH 9192 QSA NO
0605 VVV RCV DE RMUW QSA? QTC
0606 RMUW 398 26 27 1000 398 = SML =
36379 10060 39460 07418 96419 19040 18782 69696 42386 79560
47436 98426 20777 38563 07927 64802 44451 43048 67110 94367
24360 29403 63191 99773 28024 = + RMUW
1806 VVV RCV DE RBIZ QSA? QTC
1807 RBIZ 883 17 27 2200 883 = FOR RJE73 RJH45 = 27181 99349 103558 22200
1833 VVV RIW DE RMC99 QSA? QTC
1834 RMC99 297 32 27 22?? 297 = SML FOR RGR77 = 22222 44180 28992 27029 = + RMC99

8345 kHz, 29-11

0010 VVV RCV DE RMUW QSA? QTC
 0012 RMUW 115 16 29 0400 115 = SML FOR RJH?? RJH45 = 29001 99442 10368 22222
 0228 VVV RCV DE RCJG QSA? QTC
 0229 RCJG 281 3 29 0620 281 = 13972 90530 29002 = + RCJG
 0231 RCV DE RCJG QSL 979
 0232 RCV DE RCJG QRV
 0429 VVV RCV DE RFH70
 0430 RCV DE RFH70 QYT4 QSX 7748/9192



M32b
Russian Naval Aviation
Aviatsiya Voennno-morskogo Flota Rossii

The following info was submitted by Jim. Thanks Jim !

Russian Naval Air Transport Net

Stations: RJF94 Central Sector Station, Moscow (PRIBOJ)
 RJC38 Northern Sector Station, Murmansk (NOVATOR)
 RJC48 Southern Sector Station, Sevastopol (NORKA)
 RCH84 Eastern Sector Station, Vladivostok (MONOLOG)
 RCB Western Sector Station (KRAKET), Kaliningrad
 Aircraft Four figures

Frequencies: CW 2013.5, 4956, 5808, 7696, 7980, 7988, 8120, 8682, 8816 kHz
 USB 11354 kHz

Messages: 47944: 47944 QAY UWMS 1405 K.
 RCB: RCB RPT QAY K. 47944:
 RCB de 47944 QAY UMWS 1405 QAH 5500 QAL XMWS 1500 QBD 0230 K.
 RCB repeats back message.
 47944: OK K or C K.
 RCB: R K.

Q-codes: QAY UMWS = Abeam UMWS at ...
 QAH 5500 = Height 5000 (metres).
 QAL XMWS = Intend landing XMWS at 1500UTC.
 QBD 0230 = Endurance 2 hours and 30 minutes.
 QQL = Probably the same as QAY.
 QQL = Am (Was) at (over) ...
 QQM Arrived near control zone (landed at ...)

Message may be addressed to more than one station and one station may relay aircraft's message to another.

Locations: UMKK = Chrabrovo (see XMKK)
 UMWS = Smorgon 5429N 02620E.
 UUMO = Ostaf'ev 5530N 03731E.
 URKA = Anapa (Vitiazhevo) 4500N 03720E.
 URKK = Krasnodar (Pashovsky).
 XIAD = Domna AFB Nr Chita
 XLMD = Severomorsk
 XLWF = Fedotovo NAS or Vologda-Kipelovofa
 XMKK = Khrabrovo (Kaliningrad)
 XMWB = Chkalovsk AB near Kaliningrad.
 XNNT = Novosibirsk

The following logs are provided by Wolfgang.

8816 kHz, 14-11

0833 Russian Naval Air Transport. rjf94 rcb de 85280 qth 5901 2110 qtr 0828 qah 5500 qal XMKK 0940 qbd 0320 k qqm XMKK 0937 sk
1220 47525: Russian Naval Air Transport. rjf94 rjc38 de 47525 qto 1200 qrd XLMV XLWF qbg 5300 qre 1510 k qay XLPB 1300 qbg 5500 k qql ULPE 1400 qbd 3000 k qql XLMF 1450 qre XLMV 1530 k qqm XLMV 1535 sk
47521: Russian Naval Air Transport. rjc38 rjf94 de 47521 qth 6456 3429 qtr 1712 qbg 5500 qbd 2900 k

8816 kHz, 21-11

0645 rjf94 rjc38 de 47530 qto 0635 qrd XLAA XLMV qbd 4600 qre 0830 k - qth 6646 3750 qtr 0730 qre XLAA 0810 k - qqm XLAA 0806 sk
0705 rjf94 rjc38 de 12412 qto 0651 qrd XLWF XLMV qre 0715 qbd 13500 k - qth 6430 3450 qtr 0750 qbk 6400 k - qth 6001 3745 qtr 0846 qbg 6400 k - qqm XLWF 0904 sk
1043 rjf94 rjc38 de 12412 qto 1040 qrd XUMO XLWF qre 1150 qbd 16800 k - 2013-11-21 (wp3)
1405 rjf94 rjc38 de 12412 qto 1350 qrd XRKE XUMO qre 1610 qbd 1350 k - qth 5106 3937 qtr 1454 qbg 7000 k - qql URRR 1548 qbg 7000 k - qqm XRKE 1615 sk
1518 rjf94 rjc38 de 47530 qto 1500 qrd XLAA XLDA qbd 4800 qre 1740 k - qth 6847 4919 qtr 1555 qbg 6100 k - qth 6552 4412 qtr 1655 qre XLAA 1740 k - qqm XLAA 1740 sk

8816 kHz, 22-11

0724 rjf94 rjc38 de 47530 qto 0715 qrd XLMV XLAA qbd 4800 qre 0915 k - qth 6628 3616 qtr 0815 qre XLMV 0915 k - qqm XLMV 0913 sk (rjf94 XLLV ?)
1030 rjf94 rjc38 de 12412 qto 1018 qrd XLWF XRKE qre 1340 qbd 17800 k - qth 5036 4035 qtr 1119 qbg 6700 k - qth 5459 3719 qtr 1219 qbg 6400 k - qql ULWC 1316 qbg 6400 qbd 11000 k - qqm XLWF 1341 sk
1020 rjf94 rcb de 93002 qto 1000 qrd XUOW XRKA qah 5500 qbd 0500 k - qay URRW 1130 qah 5500 qal XUOW 1215 qbd 0330 k - qqm XUOW 1214 sk
1515 rjf94 rjc38 de 12412 qto 1500 qrd XLMV XLWF qre 1720 qbd 13000 k qth 6310 3547 qtr 1601 qbg 6700 k - qay XLMG 1700 qbg 6700 k - qqm XLMV ??



M32c ***Russian Air Force*** ***Voyenno-vozdushnye sily Rossii***

Most of the logs below were submitted by Tom.

8112 kHz, 04-11

0900 W-marker
0920 W-marker
1057 IWV4: NCS Russian Bear Net wkg QJ4A (in duplex). Reads back QJ4A's msg: 249 292 962 097 473 C ? K
RPT K. OK K.
1100 W-marker
1110 RPRT K Es RPT K
QJ4A de IWV4 K
IWV4 QRV K
IWV4 = 249 282 962 097 473 C? K (read-back)
IWV4 = 249 292 962 097 473 C? K
OK K
W-marker
1429 QJ4A de IWV4 (stops) QJ4A de IWV4 = 413 430 926 291 C ? K
1431 QJ4A de IWV4 (reads back again, corrects 4 to '281') C ? K
OK K
1433 QJ4A de IWV4 QRV K
IWV4 = 149 161 430 269 083 861 C? K
IWV4 OK = (reads back again, corrects 1 to '249') C? K
OK K

1440 W-marker followed by G-marker
 1446 QJ4A de IWV4 QSA2 K
 IWV4 OK K
 1500 W and G markers come on together. G marker goes off just after the W
 1641 IWV4: NCS Russian Bears Net. Reads back 270 067 012 337 985 938 866 564 820 921 C ? K (corrected) to QJ4A. Then
 QAA1 QSA NO and nothing further. QSYd to nights. G-marker still active
 1819 W and G markers

8112 kHz, 05-11, 0740 UTC: W-marker

8112 kHz, 11-11

0940 UTC: W-markers
 1014 UTC: SL7K DE IWV4 K @1014Z
 1019 UTC: IWV4 OK = 38. 484 864 .27 .63 .39 C ? K
 1200 UTC: W-markers

8112 kHz, 12-11: W-marker at 1101, 1140, 1200, 1220, 1240 UTC

8112 kHz, 22-11: W-marker at 1200 and 1220 UTC

LOGS SECTION

Logs sorted on Enigma code / date / time

enigma	date	UTC	day	frequency	remarks	mode	contributor
---	30-11-2013	1114	Sat	3772	A4JC repeated till 1120 UTC	CW	(JPL-Sib)
---	30-11-2013	1125	Sat	3285	4KUE repeated till 1125 UTC //3958	CW	(JPL-Sib)
---	30-11-2013	1125	Sat	3958	4KUE repeated till 1125 UTC //3285	CW	(JPL-Sib)
...	22-11-2013	0710	Fri	18200	i.p. 61816 61816 22314 22314 74511 74511 etc etc ends with 000 Male voice		(sky)
CHN	15-8-2013	0640		18581	Chinese diplo. VWXR DE MX	LSB 4+4 75	(EW)
CHN	18-8-2013	1020		11088	Chinese diplo.	LSB 4+4 75	(EW)
CHN	18-8-2013	1023		11091	Chinese diplo.	LSB 4+4 75	(EW)
CHN	18-8-2013	1030		10413	Chinese diplo.	LSB 4+4 75	(EW)
CHN	18-8-2013	1038		10236	Chinese diplo.	LSB 4+4 75	(EW)
CHN	18-8-2013	1124		10506	Chinese diplo.	LSB 4+4 75	(EW)
CHN	21-8-2013	1040		11109	Chinese diplo.	LSB 4+4 75	(EW)
CHN	21-8-2013	1045		10860	Chinese diplo.	LSB 4+4 75	(EW)
CHN	21-8-2013	1125		13905	Chinese diplo.	LSB 4+4 75	(EW)
CHN	25-8-2013	0715		23612.97	Chinese diplo. RHSA DE HJ	LSB 4+4 75	(EW)
CHN	26-8-2013	1200		11061	Chinese diplo. XKGB 542938	LSB 4+4 75	(EW)
CHN	27-8-2013	1105		11103	Chinese diplo.	LSB 4+4 75	(EW)
CHN	27-8-2013	1145		10656	Chinese diplo.	LSB 4+4 75	(EW)
CHN	29-8-2013	1053		10251	Chinese diplo. KCEH 320626	LSB 4+4 75	(EW)
CHN	29-8-2013	1115		10143	Chinese diplo. CGKB 500250	LSB 4+4 75	(EW)
CHN	29-8-2013	1130		10692	Chinese diplo.	LSB 4+4 75	(EW)
CHN	5-9-2013	1240		8025	Chinese diplo. GCEB 205022	LSB 4+4 75	(EW)
CHN	5-9-2013	1325		10239	Chinese diplo.	LSB 4+4 75	(EW)
CHN	23-9-2013	1325		7758	Chinese diplo.	LSB 4+4 75	(EW)
CHN	10-10-2013	1125		9174	Chinese diplo.	LSB 4+4 75	(EW)
CHN	16-10-2013	1110		13410	Chinese diplo.	LSB 4+4 75	(EW)
CHN	24-10-2013	1114		8013	Chinese diplo.	LSB 4+4 75	(EW)
CHN	26-10-2013	1057		8046	Chinese diplo.	LSB 4+4 75	(EW)

enigma	date	UTC	day	frequency	remarks	mode	contributor
CHN	6-11-2013	1137	Wed	8073	Chinese diplo. 3FGs	LSB 4+4 75	(EW)
CHN	7-11-2013	1232	Thu	10842	Chinese diplo.	LSB 4+4 75	(EW)
CHN	17-11-2013	1136	Sun	7884	Chinese diplo.	LSB 4+4 75	(EW)
CHN	17-11-2013	1150	Sun	10344	Chinese diplo.	LSB 4+4 75	(EW)
CHN	17-11-2013	1207	Sun	10392	Chinese diplo.	LSB 4+4 75	(EW)
CHN	17-11-2013	1212	Sun	10892	Chinese diplo.	LSB 4+4 75	(EW)
CHN	20-11-2013	0800	Wed	18003	Chinese diplo.	LSB 4+4 75	(EW)
CHN	24-11-2013	1217	Sun	7818	Chinese diplo. XKGB 965100	LSB 4+4 75	(EW)
CHN	25-11-2013	1024	Mon	7740	Chinese diplo.	LSB 4+4 75	(EW)
CHN	27-11-2013	1010	Wed	7794	Chinese Diplo	4+4 75/1000 LSB	(MCO)
CHN	27-11-2013	1010	Wed	8040	Chinese Diplo	4+4 75/1000 LSB	(MCO)
CHN	29-11-2013	1155	Fri	7923	Chinese diplo.	LSB 4+4 75	(EW)
CHN	29-11-2013	1205	Fri	7716	Chinese diplo.	LSB 4+4 75	(EW)
CUB	23-11-2013	1416	Sat	8096	MFA Havana CLP1 calling CLP8, Cuban Embassy in Conakry GUI (see for full details N&O 194)	CW	(DSch)
CZE	29-11-2013	1105	Fri	18320	Czech embassy Islamabad mail to MFA Prague	Pactor-III	(DK8OK)
DPRK	2-10-2013	1123		21323.6	N. Korean diplo. Possibly the embassy in Khartoum	DPRK-ARQ 600/600	(IARUMS)
DPRK	6-11-2013	2300	Wed	16003	N. Korean diplo	DPRK-ARQ 600/600)	(Dan)
DPRK	8-11-2013	2300	Fri	16003	N. Korean diplo	DPRK-ARQ 600/600	(Dan)
DPRK	10-11-2013	0800	Sun	16320	N. Korean diplo	DPRK-ARQ 600/600	(Dan)
DPRK	10-11-2013	2000	Sun	16003	N. Korean diplo	DPRK-ARQ 600/600	(Dan)
DPRK	28-11-2013	1235	Thu	14444	North Korean Embassy, Europe/Africa	DPRK-ARQ 600/600	(MCO)
DPRK	29-11-2013	0230	Fri	16135		DPRK-ARQ 600/600	(Dan)
E06	7-11-2013	2030	Thu	4836	321 790 20 16891	AM	(HFD)
E06	13-11-2013	1920	Wed	3526	218 0 distorted audio	AM	(HFD)
E06	13-11-2013	1920	Wed	3526	218 218 218 00000	AM	(MPJ/RH)
E06	13-11-2013	2020	Wed	3729	218 0	AM	(HFD)
E06	17-11-2013	1120	Sun	7316	218 0	AM	(HFD)
E06	17-11-2013	1220	Sun	6814	218 0	AM	(HFD)
E06	21-11-2013	0600	Thu	16200	507 689 112 64967	AM	(HFD)
E06	21-11-2013	0700	Thu	18200	507	AM	(HFD)
E06	21-11-2013	2030	Thu	4836	01234 90829(?) 10667 53282 90281 96542 weird transmission. 01234 repeated for several minutes; than mixes with 5FG. No end.	USB	(AB)
E07	14-11-2013	2110	Thu	6777	774 774 774 000	USB	(MPJ/HFD)
E07	14-11-2013	2130	Thu	5447	744 0	AM	(HFD)
E07	17-11-2013	1800	Sun	8153	184 1 135 81 73165	AM	(HFD)
E07	17-11-2013	1820	Sun	6853	184 1	AM	(HFD)
E07	17-11-2013	1840	Sun	5453	184 1	AM	(HFD)
E07	25-11-2013	2020	Mon	6924	798 1	AM	(HFD)
E07	25-11-2013	2040	Mon	5824	798 1	AM	(HFD)
E07	28-11-2013	2130	Thu	5449	744 744 744 000	USB	(MPJ)
E07a	6-11-2013	2100	Wed	5864	815 815 815 000	USB	(MPJ)
E07a	13-11-2013	2100	Wed	5864	815 815 815 000	USB	(MPJ)

enigma	date	UTC	day	frequency	remarks	mode	contributor
E07a	16-11-2013	0900	Sat	11553	515 515 515 000	USB	(RH/HFD)
E07a	16-11-2013	0920	Sat	12153	515 0	USB	(HFD)
E07a	20-11-2013	2100	Wed	5864	815 1 39288 3631 92 1002	USB	(HFD)
E07a	20-11-2013	2120	Wed	5164	815 1 39288	USB	(HFD)
E07a	21-11-2013	0530	Thu	5146	188 1 39288 3631 92 61002	USB	(HFD)
E07a	21-11-2013	0550	Thu	5846	188 1 39288	USB	(HFD)
E07a	21-11-2013	0610	Thu	6846	188 1-39288	USB	(HFD)
E07a	21-11-2013	2140	Thu	4564	815 1 39288	USB	(HFD)
E07a	28-11-2013	0530	Thu	5146	188 1 35451 6711 59 37074 35768 72529	USB	(AB/RH)
E07a	29-11-2013	1610	Fri	8138	158 158 158 000	USB	(HFD)
E07a	29-11-2013	1630	Fri	7538	158 158 158 000	USB	(HFD)
E11	1-11-2013	0710	Fri	10800	633/00	USB	(HFD)
E11	6-11-2013	1045	Wed	8091	469/00	USB	(MPJ)
E11	6-11-2013	1155	Wed	15632	617/00	USB	(MPJ)
E11	11-11-2013	0830	Mon	9446	641/34 attention 10651 66260 69912 27605 97666 53069 81347 59636 337797 39580 72179 74981 03811 57049 72668 12356 89977 39404 20709 85847 37183 27620 68597 67680 98814 71740 98157 53748 51666 50205 65275 64430 85529 63072 attention, rpt msg, out	USB	(RH)
E11	13-11-2013	1445	Wed	4441	287/00	USB	(HFD)
E11	14-11-2013	0745	Thu	16112	335/00	USB	(HFD)
E11	14-11-2013	1730	Thu	5082	416/00	USB	(HFD)
E11	14-11-2013	1730	Thu	5082	416/00	USB	(MPJ)
E11	15-11-2013	1128	Fri	14410	YL numbers in EE with accent	USB	(CCAr)
E11	18-11-2013	0823	Mon	8088	438/00 out	USB	(KK2)
E11	18-11-2013	1540	Mon	15632	228/00	USB	(MPJ)
E11	21-11-2013	0645	Thu	7840	517/00	USB	(HFD)
E11	21-11-2013	0900	Thu	4441	248/00	USB	(HFD)
E11	21-11-2013	1730	Thu	5082	410/37 attention 25765 89523 26692 03847 24959 ... 79813 19042 98904 22476 46984	USB	(MPJ)
E11	25-11-2013	1540	Mon	15632	228/00	USB	(FN/MPJ)
E11	26-11-2013	1045	Tue	8091	469/00	USB	(HFD)
E11	27-11-2013	0900	Wed	9446	532/36 50254	USB	(HFD)
E11	27-11-2013	1155	Wed	15632	718/00	USB	(HFD)
E11	28-11-2013	0645	Thu	7840	517/00	USB	(AB/RH)
E11a	1-11-2013	1110	Fri	14410	954/31 36495	USB	(HFD)
E11a	1-11-2013	1710	Fri	6923	957/20 97211	USB	(HFD)
E11a	2-11-2013	1400	Sat	10690	983/10 32341	USB	(HFD)
E11a	5-11-2013	1400	Tue	10690	987/10 attention 83316 71410 76664 42075 82923 35804 32325 38034 93346 77155 +	USB	(MPJ/GHn)
E11a	5-11-2013	1810	Tue	10213	985/10 attention 20803 04614 97478 14605 23287 03591 34696 10918 52671 55264	USB	(MPJ)
E11a	8-11-2013	1710	Fri	6923	957/21 attention 47445 31550 10993 08443 12207 35624 71550 44799 55563 94342 25814 18547 80210 95425 85413 35683 96417 10743 07554 88108 73385	USB	(MPJ)
E11a	9-11-2013	1810	Sat	10213	982/10 attention 88924 21057 50659 36921 03276 97108 62140 51084 45397 45920 attention, rpt msg, out	USB	(RH/MPJ)
E11a	10-11-2013	1540	Sun	15632	225/36	USB	(HFD)
E11a	10-11-2013	1540	Sun	15632	255/36 attention 48657 73840 80094 03344 28391 ... 53163 83881 71839 03347 85228	USB	(MPJ/FN)

enigma	date	UTC	day	frequency	remarks	mode	contributor
E11a	12-11-2013	1400	Tue	10690	980/10 92228 94079 57540 98613 28703 28147 69580 81413 61762 19647	USB	(MPJ)
E11a	12-11-2013	1810	Tue	10213	981/10 60498 53915 39945 90867 07514 23199 98042 96697 51281 82531	USB	(MPJ)
E11a	15-11-2013	0830	Fri	9446	641/34 10651	USB	(HFD)
E11a	15-11-2013	1710	Fri	6923	957/21 attention 08733 30788 77645 37366 41290 ... 69521 51982 90325 80970 07077	USB	(MPJ)
E11a	16-11-2013	1400	Sat	10690	981/10 attention 29179 55355 50610 37784 97068 ... 54788 57017 25683 23069 08336	USB	(MPJ)
E11a	16-11-2013	1810	Sat	10213	982/10 Attention 62797 07408 91859 87622 87423 34189 13172 00786 60103 15378 attention, rpt msg, out	USB	(AB/RH/MPJ)
E11a	18-11-2013	1110	Mon	14410	958/34 attention 81403 89930 40675 58402 12479 ... 67768 90132 74913 66445 12026	USB	(MPJ)
E11a	18-11-2013	1710	Mon	6923	959/25 attention 89952 85754 63316 19201 31180 ... 29586 14542 35455 27383 14406	USB	(MPJ)
E11a	19-11-2013	1400	Tue	10890	982/10 attention 46581 98648 14942 69928 62730 82749 13592 20590 97450 58546	USB	(MPJ)
E11a	22-11-2013	1110	Fri	14410	958/40 attention 18392 42525 47436 00232 07762 ... 63067 45580 84299 94264 40603	USB	(MPJ)
E11a	29-11-2013	1710	Fri	6923	975/20 Attention 95628 01260 96570 17013 54468 67125 71107 96762 32529 28696 86527 07766 35796 03331 96077 99038 86733 99559 84916 47782	USB	(MPJ)
E17z	14-11-2013	0800	Thu	11170	674 921/6 54545	USB	(HFD)
E17z	14-11-2013	0810	Thu	9820	674	USB	(HFD)
E17z	28-11-2013	0800	Thu	11170	674 982 5 21816 82997 94184 57440 10598 982 5 00000	USB	(AB/RH)
EGY	5-11-2013	1825	Tue	16215	Egyptian embassy, Bamako "33303" msg to MFA Cairo "99908"	Codan 16 tone data and chirp	(MCO)
EGY	14-11-2013	1210	Thu	19501.7	Egyptian Embassy, Bamako with hex offline crypto tfc to MFA Cairo headed "from: bamako"	SITOR-A 100/170	(MCO)
EGY	14-11-2013	1611	Thu	22867.7	Egyptian Embassy. Lagos with hex offline crypto to MFA Cairo on duplex link	SITOR-A 100/170	(MCO)
EGY	19-11-2013	0704	Tue	11050	MFA Cairo clg embassy Bucharest "XBVX", CODAN- Selcall "11101" de "99911"	SITOR-A / Codan selcall	(DK8OK)
EGY	26-11-2013	1340	Tue	19246.7	MFA Cairo clg Embassy Delhi "OOVP" in SITOR-A, then into Sitor-B msg	SITOR-A/B 100/170	(DK8OK)
EGY	29-11-2013	0810	Fri	19344.7	MFA Cairo clg embassy Islamabad, SITOR-A in Ara- bic, then into CODAN. Selcall "44405" to Cairo "99903"	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0815	Fri	19522	MFA Cairo just SITOR-A in Arabic	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0832	Fri	19100	MFA Cairo clg embassy Islamabad, CODAN selcall 44405	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0911	Fri	19100	MFA Cairo clg embassy Luanda, CODAN selcall 33313	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0932	Fri	19077	MFA Cairo clg embassy Abidjan "kkxo"	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0940	Fri	19100	MFA Cairo clg embassy Abidjan "kkxo" after no joy on 19077 kHz. Also no joy on that channel.	SITOR-A 100/170	(DK8OK)
EGY	29-11-2013	0952	Fri	19344.7	Egyptian embassy? SITOR-A in Arabic	SITOR-A 100/170	(DK8OK)
G06	4-11-2013	1800	Mon	4515	564 564 564 00000	USB	(MPJ/HFD)

enigma	date	UTC	day	frequency	remarks	mode	contributor
G06	14-11-2013	1830	Thu	4519	271	AM	(HFD/MPJ)
G06	29-11-2013	1930	Fri	4792	436 436 436 00000	USB	(MPJ)
G11	1-11-2013	1325	Fri	6433	291/31 68284	USB	(HFD)
G11	1-11-2013	2000	Fri	4441	269/36 30021	USB	(HFD)
G11	3-11-2013	1755	Sun	6433	260/00	USB	(MPJ)
G11	3-11-2013	2000	Sun	4441	269/36 Achtung 30021 86626 9484_19906 19879 ... 59370 53272 49090 75395 06296	USB	(MPJ)
G11	5-11-2013	1758	Tue	6433	270/00	USB	(MPJ)
G11	8-11-2013	2000	Fri	4441	262/00	USB	(MPJ)
G11	10-11-2013	1755	Sun	6433	270/00	USB	(AB/MPJ/RH)
G11	10-11-2013	2000	Sun	4441	262/00	USB	(MPJ)
G11	12-11-2013	1755	Tue	6433	270/00	USB	(MPJ)
G11	15-11-2013	2000	Fri	4441	262/00	USB	(MPJ)
G11	17-11-2013	2000	Sun	4441	262/00	USB	(AB/RH)
G11	22-11-2013	1325	Fri	6433	299/00	USB	(MPJ)
G11	22-11-2013	2000	Fri	4441	262/00	USB	(MPJ)
G11	24-11-2013	1755	Sun	6433	279/33 Achtung 28389 34955 38167 67209 85925 ... 95741 87917 47864 14798 44732	USB	(MPJ)
G11	24-11-2013	2000	Sun	4441	262/00	USB	(MPJ/RH)
G11	25-11-2013	2000	Mon	4441	262/00	USB	(FN)
G11	29-11-2013	1325	Fri	6433	299/00	USB	(MPJ)
G11	29-11-2013	2000	Fri	4441	262/00	USB	(MPJ/GHn)
HM01	2-11-2013	2300	Sat	17540	84858 17625 50554 77451 05043 12835	AM/RDFT	(Dan)
HM01	3-11-2013	2300	Sun	11530	04421 17626 50555 77452 05044 12836	AM/RDFT	(Dan)
HM01	5-11-2013	2250	Tue	17480	in progress until 2255 abrupt end. Back at 2259 and ends at 2300	AM/RDFT	(steve)
HM01	6-11-2013	0725	Wed	9330	YL speaking Spanish and digital alternate	AM/RDFT	(k5knt)
HM01	8-11-2013	2300	Fri	11530	37701 47214 85462 24572 06013 07163	AM/RDFT	(Dan)
HM01	9-11-2013	2100	Sat	16180	DGI. Spanish 5LGs followed by RDFT data. 2125 si- lent. Restarted 2128	AM/RDFT	(steve)
HM01	9-11-2013	2200	Sat	16180	DGI. Spanish 5LGs followed by RDFT data. Abrupt stop at 2213	AM/RDFT	(steve)
HM01	9-11-2013	2213	Sat	17480	DGI. Spanish 5LGs followed by RDFT data in pro- gress	AM/RDFT	(steve)
HM01	10-11-2013	2300	Sun	11530	37703 47216 85464 24574 06015 07165	AM/RDFT	(Dan)
HM01	11-11-2013	0800	Mon	9240	Cuban Intel, Cuba	AM/RDFT	(SP1)
HM01	11-11-2013	2300	Mon	11530	37704 47217 85465 24575 47351 07166	AM/RDFT	(Dan)
HM01	12-11-2013	2100	Tue	16180	37705 34811 85466 11131 47352 07167	AM/RDFT	(Dan)
HM01	13-11-2013	2300	Wed	11530	37705 34811 85466 11131 47352 07167	AM/RDFT	(Dan)
HM01	14-11-2013	2100	Thu	16180	37706 34812 85467 11132 47353 07168	AM/RDFT	(Dan)
HM01	14-11-2013	2121	Thu	16180	37706 34812 85467 11132 47353 07168	AM/RDFT	(DSch)
HM01	14-11-2013	2200	Thu	17480	37706 34812 85467 11132 47353 07168	AM/RDFT	(DSch)
HM01	14-11-2013	2259	Thu	17540	37706 34812 85467 11132 47353 07168	AM/RDFT	(DSch)
HM01	15-11-2013	2300	Fri	10715	37707 34813 73541 11133 47354 32321 Note diff 3rd & 6th grps and change in 5th digit of other grps.	AM/RDFT	(DSch)
HM01	16-11-2013	1625	Sat	11435	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch)
HM01	16-11-2013	1659	Sat	11530	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch)
HM01	16-11-2013	1759	Sat	11635	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch)
HM01	16-11-2013	2106	Sat	16180	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch)
HM01	16-11-2013	2159	Sat	17480	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch)
HM01	16-11-2013	2300	Sat	17540	88601 34814 73542 11134 47355 32322 161625	AM/RDFT	(DSch/Dan)
HM01	17-11-2013	0533	Sun	5855	sked w/ YL/SS & RDFT signals	AM/RDFT	(N2UHC)

enigma	date	UTC	day	frequency	remarks	mode	contributor
HM01	17-11-2013	0625	Sun	10345	88601 34184 72542 11134 47355 32322	AM/RDFT	(KC2TTK)
HM01	17-11-2013	0700	Sun	9330	88601 34184 72542 11134 47355 32322	AM/RDFT	(KC2TTK)
HM01	17-11-2013	1719	Sun	11530	88602 34815 73543 11135 27801 32323	AM/RDFT	(DSch)
HM01	17-11-2013	2104	Sun	11635	88602 34815 73543 11135 27801 32323	AM/RDFT	(DSch/N2UH C)
HM01	17-11-2013	2202	Sun	10715	88602 34815 73543 11135 27801 32323	AM/RDFT	(DSch)
HM01	18-11-2013	1733	Mon	11530	88603 34816 73544 11136 27802 32324	AM/RDFT	(DSch)
HM01	18-11-2013	1801	Mon	11635	88603 34816 73544 11136 27802 32324	AM/RDFT	(DSch)
HM01	18-11-2013	2103	Mon	11635	88603 34816 73544 11136 27802 32324	AM/RDFT	(DSch)
HM01	18-11-2013	2200	Mon	10715	88603 34816 73544 11136 27802 32324	AM/RDFT	(DSch)
HM01	18-11-2013	2300	Mon	11530	88603 34816 73544 11136 27802 32324	AM/RDFT	(DSch)
HM01	19-11-2013	1707	Tue	11530	88604 34817 73545 37451 27803 32325	AM/RDFT	(DSch)
HM01	19-11-2013	1808	Tue	11635	88604 34817 73545 37451 27803 32325	AM/RDFT	(DSch)
HM01	19-11-2013	2102	Tue	16180	88604 34817 73545 37451 27803 32325	AM/RDFT	(DSch/steve)
HM01	19-11-2013	2204	Tue	17480	88604 34817 73545 37451 27803 32325	AM/RDFT	(DSch)
HM01	19-11-2013	2301	Tue	17480	88604 34817 73545 37451 27803 32325. Starting over on this freq. Should be on 17540. At 2301 apparently caught their error. Carrier now on 17540 and into 88604 etc at 2303	AM/RDFT	(DSch)
HM01	19-11-2013	2303	Tue	17540	88604 34817 73545 37451 27803 32325. Comes from 17480 kHz	AM/RDFT	(DSch)
HM01	20-11-2013	1605	Wed	11435	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	20-11-2013	1718	Wed	11530	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	20-11-2013	1759	Wed	11635	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	20-11-2013	2102	Wed	11635	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	20-11-2013	2159	Wed	10715	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	20-11-2013	2259	Wed	11530	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	21-11-2013	2103	Thu	16180	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	21-11-2013	2249	Thu	17540	88606 etc. But this is the 2300 freq??	AM/RDFT	(DSch)
HM01	21-11-2013	2300	Thu	17540	88606 etc.	AM/RDFT	(DSch/Dan)
HM01	22-11-2013	1603	Fri	11435	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	22-11-2013	1700	Fri	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	22-11-2013	1759	Fri	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	22-11-2013	2107	Fri	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	22-11-2013	2206	Fri	10715	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	22-11-2013	2300	Fri	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	23-11-2013	1605	Sat	11435	Uno Uno Uno Uno (hung up) then 83381 22574 15441 50182 08444 51835	AM/RDFT	(DSch)
HM01	23-11-2013	1808	Sat	11530	83831 22754 15441 50182 08444 51835etc	AM/RDFT	(DSch)
HM01	23-11-2013	1809	Sat	11635	83831 22754 15441 50182 08444 51835etc	AM/RDFT	(DSch)
HM01	23-11-2013	2108	Sat	16180	88606 56512 46771 37453 27805 71261 (can also hear grps from previous sked)	AM/RDFT	(DSch)
HM01	23-11-2013	2227	Sat	17480	88606 56512 46771 37453 27805 71261 & 83831 22754 15441 50182 08444 51835. Both sets of groups being xmted	AM/RDFT	(DSch)
HM01	23-11-2013	2306	Sat	17540	88606 56512 46771 37453 27805 71261 & 83831 22754 15441 50182 08444 51835. Groups also messed up on this sked	AM/RDFT	(DSch/Dan)
HM01	24-11-2013	1607	Sun	11435	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	24-11-2013	1701	Sun	11530	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	24-11-2013	1759	Sun	11635	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	24-11-2013	2107	Sun	11635	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)

enigma	date	UTC	day	frequency	remarks	mode	contributor
HM01	24-11-2013	2159	Sun	10715	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	24-11-2013	2300	Sun	11530	37452 27804 32326 88605 56511 73546	AM/RDFT	(Dan)
HM01	24-11-2013	2324	Sun	11530	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	25-11-2013	1730	Mon	11530	88605 etc	AM/RDFT	(DSch)
HM01	25-11-2013	1759	Mon	11635	88605 etc	AM/RDFT	(DSch)
HM01	25-11-2013	2101	Mon	11635	88605 etc	AM/RDFT	(DSch)
HM01	25-11-2013	2202	Mon	10715	88605 etc	AM/RDFT	(DSch)
HM01	25-11-2013	2258	Mon	11530	88605 etc	AM/RDFT	(DSch)
HM01	26-11-2013	1805	Tue	11635	88605 etc	AM/RDFT	(DSch)
HM01	26-11-2013	2104	Tue	16180	88605 etc	AM/RDFT	(DSch)
HM01	26-11-2013	2228	Tue	17480	88605 etc	AM/RDFT	(DSch)
HM01	26-11-2013	2300	Tue	17540	37452 27804 32326 88605 56511 73546	AM/RDFT	(Dan)
HM01	27-11-2013	1603	Wed	11435	88605 56511 73546 37452 27804 32326	AM/RDFT	(DSch)
HM01	27-11-2013	1659	Wed	11530	88605 etc	AM/RDFT	(DSch)
HM01	27-11-2013	1759	Wed	11530	88605 etc. Should be on 11635 kHz. They caught their mistake & shifted to 11635 kHz at 1803	AM/RDFT	(DSch)
HM01	27-11-2013	1803	Wed	11635	Shifted from 11530 to 11635 kHz at 1803	AM/RDFT	(DSch)
HM01	27-11-2013	2101	Wed	11635	88605s etc	AM/RDFT	(DSch)
HM01	27-11-2013	2201	Wed	10715	88605 etc mixed with M08a	AM/RDFT	(DSch)
HM01	28-11-2013	1605	Thu	11435	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	28-11-2013	1658	Thu	11530	88606 etc at 281658	AM/RDFT	(DSch)
HM01	28-11-2013	1758	Thu	11635	88606 etc at 281758	AM/RDFT	(DSch)
HM01	28-11-2013	2058	Thu	16180	88606 etc atg 282058	AM/RDFT	(DSch)
HM01	28-11-2013	2211	Thu	17480	88606 etc at 282211	AM/RDFT	(DSch)
HM01	28-11-2013	2220	Thu	17480	female mechanical synthesized voice repeated 6 5FGs followed by RDFT data	AM/RDFT	(steve)
HM01	28-11-2013	2258	Thu	17540	88606 etc at 282258 Weak sig & fading	AM/RDFT	(DSch)
HM01	29-11-2013	0530	Fri	5855	Spanish Numbers w/ Data	AM/RDFT	(RH)
HM01	29-11-2013	0700	Fri	9330		AM/RDFT	(CS)
HM01	29-11-2013	1624	Fri	11435	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	29-11-2013	1704	Fri	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	29-11-2013	1811	Fri	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	29-11-2013	2104	Fri	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	30-11-2013	1742	Sat	11530	88606 etc	AM/RDFT	(DSch)
HM01	30-11-2013	1759	Sat	11635	88606 etc	AM/RDFT	(DSch)
HM01	30-11-2013	2103	Sat	16180	88606 etc	AM/RDFT	(DSch)
HM01	30-11-2013	2106	Sat	16180	YL/SS numbers & RDFT tones	AM/RDFT	(N2UHC)
HM01	30-11-2013	2203	Sat	17480	88606 etc	AM/RDFT	(DSch)
HM01	30-11-2013	2259	Sat	17540	88606 etc	AM/RDFT	(DSch)
JAM	4-11-2013	1211	Mon	9920	Vietnamese Jammer vs FEBC Radio	USB	(CCAr)
M01	5-11-2013	1800	Tue	5320	197 221 30 91840 72867 25972 73969 09889 ... (remainder missed)	CW	(MPJ)
M01	10-11-2013	0700	Sun	5465		CW	(RH)
M01	14-11-2013	1800	Thu	5320	197 181 30 20442 85318 87329 48793 84336 ... 19452 20884 26751 42290 75733 181 30 000	CW	(MPJ/HFD)
M01	16-11-2013	1500	Sat	5810	197 = = 30 30 56447 19260 25064 60624 06011 ... 72460 28614 28197 43017 81237 = = 453 30 30 000	CW	(MPJ)
M01	17-11-2013	0700	Sun	5465		CW	(RH)
M01	19-11-2013	1810	Tue	5320	(In progress) ... 79224 95862 98840 37078 34266 = = 345 30 000	CW	(MPJ)
M01	23-11-2013	1500	Sat	5810	197	CW	(HFD)
M01	24-11-2013	0700	Sun	5465	197 ## 30 #4626	CW	(HFD)

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M01	26-11-2013	2000	Tue	4490	197 012 30 20690	CW	(HFD)
M01b	7-10-2013	1811		3537	420 420 420 5FGs	CW	(IARUMS)
M01b	4-11-2013	1910	Mon	3520	853 _8_ 34 93228 __515 __38_ 641__ (becomes unreadable). 2435 kHz freq QRMd	CW	(MPJ)
M01b	4-11-2013	2015	Mon	3205	375 783 34 = = 9_248 26156 _7381 32641 63552 ... _3276 5_909 90_6_ 00564 67879 = = 783 34 000	CW	(MPJ)
M01b	8-11-2013	2002	Fri	2655	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //3197	MCW	(MPJ)
M01b	8-11-2013	2002	Fri	3197	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //2655	MCW	(MPJ)
M01b	8-11-2013	2110	Fri	2405	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //3180	MCW	(MPJ)
M01b	8-11-2013	2110	Fri	3180	866 389 33 = = 02813 25471 32740 6114_ 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000 //2405	MCW	(MPJ)
M01b	15-11-2013	2110	Fri	3180	610 ??? 33 = 02813	CW	(HFD/MPJ)
M01b	18-11-2013	1910	Mon	3520		CW	(RH)
M01b	18-11-2013	2015	Mon	3205	375 ... Unreadable. Nothing on 2427 kHz.	MCW	(MPJ)
M01b	22-11-2013	2001	Fri	2655	866 339 339 33 33 = = 02813 05411 __471 3274_ 6213 ... Mostly uncopiable. Nothing on 3197 kHz	MCW	(MPJ)
M01b	25-11-2013	1910	Mon	3519	853 389 33 = 02813	CW	(HFD)
M01b	25-11-2013	2015	Mon	2427	375 389 33 = 02813 //3205	CW	(HFD)
M01b	25-11-2013	2015	Mon	3205	375 389 33 = 02813 //2427	CW	(HFD)
M01b	25-11-2013	2015	Mon	3205	375 389 33 = = 02813 25471 32740 61143 7902_ ... 11_52 4179_ 18158 98282 99417 389 33 ...	MCW	(MPJ)
M01b	28-11-2013	1932	Thu	2470	910 389 33 = 02813 //3545	CW	(HFD)
M01b	28-11-2013	1932	Thu	3545	910 389 33 = 02813 //2470	CW	(HFD)
M01b	28-11-2013	2042	Thu	2485	362 389 33 = 02813 //3160	CW	(HFD)
M01b	28-11-2013	2042	Thu	3160	389 33 = = 02813 25471 32740 61143 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000	MCW	(MPJ/HFD)
M01b	29-11-2013	2002	Fri	2655	866 389 33 = = 02813 25471 32740 61143 87902 ... 11252 04179 18158 98182 99427 = = 389 33 000. Nothing on 3179 kHz	MCW	(MPJ/HFD)
M01b	29-11-2013	2002	Fri	3197	866 389 33 = 02813 //2655	CW	(HFD)
M01b	29-11-2013	2110	Fri	2405	610 389 33 = = 02813 25471 32740 61143 87902 ... Repeat of msg for 866 20:02. Nil hrd 3180 kHz. 1100 Hz note	MCW	(MPJ)
M03	3-11-2013	1320	Sun	4828	437/00	CW	(HFD)
M03	5-11-2013	1535	Tue	5358	798/00	CW	(MPJ)
M03	10-11-2013	1320	Sun	4828	437/00	CW	(FN)
M03	12-11-2013	1535	Tue	5358	798/00	CW	(MPJ)
M03	14-11-2013	1115	Thu	4828	650/00	CW	(HFD)
M03	15-11-2013	1420	Fri	13911	879/00	CW	(HFD)
M03	16-11-2013	1535	Sat	5358	798/00	CW	(MPJ)
M03	23-11-2013	1535	Sat	5356	798/00	CW	(MPJ)
M03	26-11-2013	1535	Tue	5358	792/37 15148	CW	(HFD)
M08a	20-11-2013	1440	Wed	8096	Cuban cut nbrs	CW	(DSch)
M08a	21-11-2013	2018	Thu	7554	Cuban cut nbrs	CW	(DSch)
M08a	22-11-2013	1402	Fri	8096	Cuban cut nbrs in CW	CW	(DSch)
M08a	25-11-2013	1419	Mon	8096	Cuban cut nbrs	CW	(DSch)

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M08a	27-11-2013	2201	Wed	10715	RDADE GUGRA GTGG mixed with HM01	CW	(DSch)
M08a	28-11-2013	1956	Thu	7554	Cuban cut nbrs GUTWA TIUIA AAIAN	CW	(DSch)
M12	2-11-2013	1310	Sat	9162	104 1 8595 129 58821	CW	(FN)
M12	2-11-2013	1330	Sat	8062	104 1 8595 129 58821	CW	(FN)
M12	4-11-2013	0530	Mon	4617	638 638 638 000	CW	(FN)
M12	4-11-2013	0550	Mon	5317	638 638 638 000	CW	(FN)
M12	4-11-2013	1300	Mon	9187	106 1 4632 287 11293 15464 32405 35506 69271 ... 41257 55322 79015 06497 94409 000 000	CW	(MPJ/FN)
M12	4-11-2013	1325	Mon	8057	106 1 4632 287 11293	CW	(FN)
M12	4-11-2013	1350	Mon	7697	106 1 4632 287 11293	CW	(FN)
M12	4-11-2013	1600	Mon	11435	938 1 8729 102 12807	CW	(FN)
M12	4-11-2013	1620	Mon	10598	938 1 8729 102 12807	CW	(FN)
M12	4-11-2013	1640	Mon	9327	938 1 8729 102 12807	CW	(FN)
M12	4-11-2013	1700	Mon	9176	257 1 5005 72 95149	CW	(FN)
M12	4-11-2013	1720	Mon	7931	256 1 5005 72 95149 36442 46564 33628 13850 ...83487 40572 95031 30384 89344 000 000	CW	(MP/FNJ)
M12	4-11-2013	1740	Mon	6904	257 1 5005 72 95149	CW	(FN)
M12	4-11-2013	1800	Mon	9176	257 1 6549 60 08123	CW	(FN)
M12	4-11-2013	1820	Mon	7931	257 1 6549 60 08123	CW	(FN)
M12	4-11-2013	1840	Mon	6904	257 1 6549 60 08123	CW	(FN)
M12	4-11-2013	1900	Mon	9176	257 1 6885 105 70888	CW	(FN)
M12	4-11-2013	1920	Mon	7931	257 1 6885 105 70888	CW	(FN)
M12	4-11-2013	1940	Mon	6904	257 1 6885 105 70888	CW	(FN)
M12	5-11-2013	0104	Tue	14793	792 792 792 1 then into 5FGs	CW	(MCO)
M12	5-11-2013	1830	Tue	10343	124 1 7820 57 86384 45049 72402 29193 52829 ... 23494 05589 95514 87168 58198 000 000	CW	(MPJ/FN)
M12	5-11-2013	1850	Tue	9264	124 1 7820 57 86384	CW	(FN)
M12	5-11-2013	1910	Tue	8116	124 1 7820 57 86384	CW	(FN)
M12	6-11-2013	1500	Wed	8112	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000	CW	(MPJ/FN)
M12	6-11-2013	1520	Wed	7552	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000	CW	(MPJ/FN)
M12	6-11-2013	1540	Wed	6792	106 1 4632 287 11293 15464 12405 35508 69271 ... 41257 55322 79015 06497 94409 000 000	CW	(MPJ/FN)
M12	6-11-2013	1700	Wed	8047	463 1 7975 97 78795 74343 24316 77216 57919 ... 45954 23382 64306 48241 19654 000 000	CW	(MPJ/FN)
M12	6-11-2013	1720	Wed	6802	463 1 7975 97 78795	CW	(FN)
M12	6-11-2013	1740	Wed	5788	463 1 7975 97 78795	CW	(FN)
M12	6-11-2013	1830	Wed	11435	938 1 2581 52 84390	CW	(FN)
M12	6-11-2013	1850	Wed	10598	938 1 2581 52 84390	CW	(FN)
M12	6-11-2013	2200	Wed	5429	460 460 460 000	CW	(FN)
M12	6-11-2013	2220	Wed	4629	460 460 460 000	CW	(FN)
M12	7-11-2013	0730	Thu	5884	888 888 888 000	CW	(FN)
M12	7-11-2013	0730	Thu	6884	888 888 888 000	CW	(FN)
M12	7-11-2013	1310	Thu	9162	104 104 104 000	CW	(FN/HFD)
M12	7-11-2013	1330	Thu	8062	104 104 104 000	CW	(FN/HFD)
M12	7-11-2013	1600	Thu	13386	725 1 4818 101 36461	CW	(FN)
M12	7-11-2013	1620	Thu	12189	725 1 4818 101 36461	CW	(FN)
M12	7-11-2013	1640	Thu	11491	725 1 4818 101 36461	CW	(FN)
M12	7-11-2013	1700	Thu	9176	257 1 8737 79 44962	CW	(FN)
M12	7-11-2013	1700	Thu	10343	124 1 3969 70 72956	CW	(FN/HFD)
M12	7-11-2013	1720	Thu	7931	257 1 8737 79 44962	CW	(FN)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M12	7-11-2013	1720	Thu	9264	124 1 3969 70 72956	CW	(FN/HFD)
M12	7-11-2013	1740	Thu	6904	257 1 8737 79 44962	CW	(FN)
M12	7-11-2013	1740	Thu	8116	124 1 3969 70 72956	CW	(FN/HFD)
M12	7-11-2013	1800	Thu	10343	124 1 8326 110 81544	CW	(FN/HFD)
M12	7-11-2013	1820	Thu	9264	124 1 8326 110 81544	CW	(FN/HFD)
M12	7-11-2013	1840	Thu	8116	124 1 8326 110 81544	CW	(FN/HFD)
M12	7-11-2013	1900	Thu	9176	257 1 1663 65 08923	CW	(FN)
M12	7-11-2013	1920	Thu	7931	257 1 1663 65 08923	CW	(FN)
M12	7-11-2013	1940	Thu	6904	257 1 1663 65 08923	CW	(FN)
M12	9-11-2013	1310	Sat	9162	104 104 104 000	CW	(FN)
M12	9-11-2013	1330	Sat	8062	104 104 104 000	CW	(FN)
M12	11-11-2013	0530	Mon	4617	638 638 638 000	CW	(FN)
M12	11-11-2013	0550	Mon	5317	638 638 638 000	CW	(FN)
M12	11-11-2013	1300	Mon	9187	106 1 4227 179 78580	CW	(FN)
M12	11-11-2013	1320	Mon	8057	106 1 4227 179 78580	CW	(FN)
M12	11-11-2013	1340	Mon	7697	106 1 4227 179 78580	CW	(FN)
M12	11-11-2013	1600	Mon	11435	938 1 7144 113 63712	CW	(FN)
M12	11-11-2013	1620	Mon	10598	938 1 7144 113 63712	CW	(FN)
M12	11-11-2013	1640	Mon	9327	938 1 7144 113 63712	CW	(FN)
M12	11-11-2013	1700	Mon	9176	257 1 2913 74 67153	CW	(FN)
M12	11-11-2013	1720	Mon	7931	257 1 2913 74 67153	CW	(FN)
M12	11-11-2013	1740	Mon	6904	257 1 2913 74 67153	CW	(FN)
M12	11-11-2013	1800	Mon	9176	257 1 7733 69 39549	CW	(FN)
M12	11-11-2013	1820	Mon	7931	257 1 7733 69 39549	CW	(FN)
M12	11-11-2013	1840	Mon	6904	257 1 7733 69 39549	CW	(FN)
M12	11-11-2013	1900	Mon	9176	257 1 7911 117 30493	CW	(FN)
M12	11-11-2013	1920	Mon	7931	257 1 7911 117 30493	CW	(FN)
M12	11-11-2013	1940	Mon	6823		CW	(RH)
M12	11-11-2013	1940	Mon	6904	257 1 7911 117 30493	CW	(FN)
M12	12-11-2013	1830	Tue	10343	124 1 1339 50 70717	CW	(FN)
M12	12-11-2013	1850	Tue	9264	124 1 1339 50 70717 55113 31885 45193 29354 ... 38709 50283 53832 32942 08956 000 000	CW	(MPJ/FN)
M12	12-11-2013	1910	Tue	8116	124 1 1339 50 70717	CW	(FN/RH)
M12	13-11-2013	1700	Wed	8047	463 1 7433 62 38419	CW	(FN)
M12	13-11-2013	1720	Wed	6802	463 1 7433 62 38419	CW	(FN)
M12	13-11-2013	1720	Wed	6802	463 1 7433 62 38419 24096 83362 39167 96199 ... 08321 66403 13678 32125 21522 000 000. '4' in callup sometimes sent as 'V'	CW	(MPJ/FN)
M12	13-11-2013	1740	Wed	5788	463 1 7433 62 38419	CW	(FN)
M12	13-11-2013	1830	Wed	11435	938 1 9804 65 49825	CW	(FN)
M12	13-11-2013	1850	Wed	10598	938 1 9804 65 49825	CW	(FN)
M12	13-11-2013	1910	Wed	9327	938 1 9804 65 49825	CW	(FN/RH)
M12	13-11-2013	2200	Wed	5429	460 460 460 000	CW	(FN/MPJ)
M12	13-11-2013	2220	Wed	4629	460 460 460 000	CW	(FN)
M12	14-11-2013	0730	Thu	5884	888 888 888 000	CW	(FN/HFD)
M12	14-11-2013	0750	Thu	6884	888 888 888 000	CW	(FN/HFD)
M12	14-11-2013	1310	Thu	9162	104 104 104 000	CW	(FN)
M12	14-11-2013	1330	Thu	8062	104 104 104 000	CW	(FN)
M12	14-11-2013	1600	Thu	13386	725 1 5186 109 90831	CW	(FN)
M12	14-11-2013	1620	Thu	12189	725 1 5186 109 90831	CW	(FN)
M12	14-11-2013	1640	Thu	11491	725 1 5186 109 90831	CW	(FN)

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M12	14-11-2013	1700	Thu	9176	257 1 2707 91 51174	CW	(FN)
M12	14-11-2013	1700	Thu	9176	257 1 2707 91 51174 61715 18323 52115 38361 ... 10927 07939 86529 35809 81671 000 000	CW	(MPJ)
M12	14-11-2013	1700	Thu	10343	124 1 9306 76 40375 99747 02723 47687 97765 ... 27293 09746 52579 08044 74099 000 000	CW	(MPJ/FN)
M12	14-11-2013	1720	Thu	7931	257 1 2707 91 51174	CW	(FN)
M12	14-11-2013	1720	Thu	9264	124 1 9306 76 40375	CW	(FN)
M12	14-11-2013	1740	Thu	6904	257 1 2707 91 51174	CW	(FN)
M12	14-11-2013	1740	Thu	8116	124 1 9306 76 40375	CW	(FN/RH)
M12	14-11-2013	1800	Thu	10343	124 1 4905 102 18234	CW	(FN)
M12	14-11-2013	1820	Thu	9264	124 1 4905 102 18234	CW	(FN)
M12	14-11-2013	1840	Thu	8116	124 1 4905 102 18234	CW	(FN)
M12	14-11-2013	1900	Thu	9176	257 1 1263 44 05275	CW	(FN)
M12	14-11-2013	1920	Thu	7931	257 1 1263 44 05275	CW	(FN)
M12	14-11-2013	1940	Thu	6904	257 1 1263 44 05275	CW	(FN)
M12	16-11-2013	1310	Sat	9162	104 104 104 000	CW	(MPJ)
M12	17-11-2013	1010	Sun	15969	941 0	CW	(HFD)
M12	17-11-2013	1030	Sun	17479	941 0	CW	(HFD)
M12	18-11-2013	1300	Mon	9187	106 2 186 123 55369 23657 45686 64547 95475 ... 31225 80529 20335 90439 52365. 106 2 427 179 78580 24417 11969 26734 12987 ...	CW	(MPJ)
M12	18-11-2013	1720	Mon	7931	257 1 44699 07797 38619 99800 38072 ... 81741 31547 33756 94884 89934 000 000	CW	(MPJ)
M12	18-11-2013	1920	Mon	7931		CW	(RH)
M12	19-11-2013	1910	Tue	8116	124 1 2718 70 12611 _814_ 61_84 742_6 ____45 (uncopiable - flutter fading)	CW	(MPJ)
M12	20-11-2013	1910	Wed	9327		CW	(RH)
M12	20-11-2013	2245	Wed	4030	i.p. ... 67798 97587 49865 20123 35725 ... 94532 000 000	CW	(JPL)
M12	21-11-2013	1700	Thu	9176	257 1 6801 55 14770 03157 22623 50403 26549 ... 64435 82660 12869 06098 14038 000 000	CW	(MPJ)
M12	21-11-2013	1740	Thu	8116	124 1 52775 25417 72651 42500 06840 ... 76392 67757 91880 56550 56613 000 000	CW	(MPJ)
M12	23-11-2013	1310	Sat	9162	104 104 104 000	CW	(FN)
M12	23-11-2013	1330	Sat	8062	104 104 104 000	CW	(FN)
M12	25-11-2013	0530	Mon	4617	638 638 638 000	CW	(FN)
M12	25-11-2013	0550	Mon	5317	638 638 638 000	CW	(FN)
M12	25-11-2013	1300	Mon	9187	106 1 68219 92944 10457 13089 66707 ... 41296 23511 23137 62936 25038 83366 000 000	CW	(MPJ/FN/HF D)
M12	25-11-2013	1320	Mon	8057	106 1	CW	(HFD)
M12	25-11-2013	1330	Mon	8057	106 1 7345 157 68219	CW	(FN)
M12	25-11-2013	1340	Mon	7697	106 1	CW	(HFD)
M12	25-11-2013	1350	Mon	7697	106 1 7345 157 68219	CW	(FN)
M12	25-11-2013	1600	Mon	11435	938 1 3088 112 06109	CW	(FN/HFD)
M12	25-11-2013	1620	Mon	10598	938 1 3088 112 06109	CW	(FN/HFD)
M12	25-11-2013	1640	Mon	9327	938 1 3088 112 06109	CW	(FN/HFD)
M12	25-11-2013	1700	Mon	9176	257 1 8205 70 46216	CW	(FN)
M12	25-11-2013	1720	Mon	7931	257 1 8205 70 46216 69151 72954 71545 74360 ... 71786 59449 62952 26895 15979 000 000	CW	(MPJ/FN)
M12	25-11-2013	1740	Mon	6904	257 1 8205 70 46216	CW	(FN)
M12	25-11-2013	1800	Mon	9176	257 1 9075 65 95737	CW	(FN)
M12	25-11-2013	1820	Mon	7931	257 1 9075 65 95737	CW	(FN)

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M12	25-11-2013	1840	Mon	6904	257 1 9075 65 95737	CW	(FN)
M12	25-11-2013	1900	Mon	9176	257 1 5904 112 47598	CW	(FN)
M12	25-11-2013	1920	Mon	7931	257 1 5904 112 47598 72410 42407 83689 31033 ... 92752 95043 12577 79010 19073 000 000	CW	(MPJ/FN/RH)
M12	25-11-2013	1940	Mon	6904	257 1 5904 112 47598	CW	(FN)
M12	27-11-2013	1500	Wed	8112	106 1 7345 157 68219	CW	(FN/HFD)
M12	27-11-2013	1520	Wed	7552	106 1 7345 157 68219	CW	(FN/HFD)
M12	27-11-2013	1540	Wed	6752	106 1 7345 157 68219	CW	(FN)
M12	27-11-2013	1540	Wed	6792	106 1	CW	(HFD)
M12	27-11-2013	1700	Wed	8047	463 1 4831 57 33413	CW	(FN)
M12	27-11-2013	1720	Wed	6802	463 1 4831 57 33413	CW	(FN)
M12	27-11-2013	1741	Wed	5789	463 463 463 1 4831 57 4831 57 33413 49197 14210 72393 19777 000 000	CW	(JPL-Sib/FN)
M12	27-11-2013	2200	Wed	5429	460 460 460 000	CW	(FN)
M12	27-11-2013	2200	Wed	5429	460 0	CW	(HFD)
M12	27-11-2013	2220	Wed	4629	460 460 460 000	CW	(FN)
M12	27-11-2013	2220	Wed	4629	460 0	CW	(HFD)
M12	28-11-2013	0730	Thu	5884		CW	(RH)
M12	28-11-2013	1010	Thu	15969	941 1 9511 93 03697	CW	(FN)
M12	28-11-2013	1030	Thu	17479	941 1 9511 93 03697	CW	(FN)
M12	28-11-2013	1050	Thu	18169	941 1 9511 93 03697	CW	(FN)
M12	28-11-2013	1239	Thu	14721	262 for 5 minutes then 5FGs	CW	(MCO)
M12	28-11-2013	1310	Thu	9162	104 1 5518 113 03471	CW	(FN)
M12	28-11-2013	1330	Thu	8062	104 1 5518 113 03471	CW	(FN)
M12	28-11-2013	1350	Thu	7462	104 1 5518 113 03471	CW	(FN)
M12	28-11-2013	1600	Thu	13386	725 1 2168 115 70899	CW	(FN)
M12	28-11-2013	1620	Thu	12189	725 1 2168 115 70899	CW	(FN)
M12	28-11-2013	1640	Thu	11491	725 1 2168 115 70899	CW	(FN)
M12	28-11-2013	1700	Thu	6904	257 1 6255 98 59369	CW	(FN)
M12	28-11-2013	1700	Thu	7931	257 1 6255 98 59369	CW	(FN)
M12	28-11-2013	1700	Thu	9176	257 1 6255 98 59369	CW	(FN)
M12	28-11-2013	1700	Thu	10343	124 1 ...	CW	(FN)
M12	28-11-2013	1720	Thu	9264	124 1 8633 80 33429	CW	(FN)
M12	28-11-2013	1740	Thu	8116	124 1 8633 80 33429	CW	(FN)
M12	28-11-2013	1800	Thu	10343	124 1 ...	CW	(FN)
M12	28-11-2013	1820	Thu	9264	124 1 362 97 35084	CW	(FN)
M12	28-11-2013	1840	Thu	8116	124 1 362 97 35084	CW	(FN)
M12	28-11-2013	1900	Thu	9176	257 1 ...	CW	(FN)
M12	28-11-2013	1920	Thu	7931	257 1 7837 61 95512	CW	(FN)
M12	28-11-2013	1940	Thu	6904	257 1 7837 61 95512	CW	(FN)
M14	12-11-2013	1820	Tue	4636	186 247 247 020 020 11__3 12783 94170 32036 ... 74237 76867 72359 19264 82569 247 247 020 020 00000	CW	(MPJ/FYM)
M14	13-11-2013	1920	Wed	4761	748 365 20 48975	CW	(HFD)
M14	13-11-2013	1920	Wed	4761	365 020 48975 58543 92326 97857 80598 ... 21024 34754 33051 60145 43516 365 020 00000	CW	(MPJ/RH)
M14	16-11-2013	0800	Sat	5430		CW	(RH)
M14	23-11-2013	0800	Sat	5430		CW	(RH)
M21	11-11-2013	2125	Mon	4866	=990125??8?????	CW	(JPL-FNL)
M21	11-11-2013	2127	Mon	4952	=990128??0?????	CW	(JPL-FNL)
M23	11-11-2013	1510	Mon	8030	246 246 246 ...	CW	(FN)
M24	13-11-2013	1705	Wed	7377	i.p. 16286 16286 28583 28583 94874 94874 39178	CW	(EO)

enigma	date	UTC	day	frequency	remarks	mode	contributor
					39178109 109 00000		
M32	1-11-2013	0233	Fri	5430	VV CUK DE KV6A K (see N&O 194)	CW	(JPL-Sib)
M32	10-11-2013	1306	Sun	10898	J4VE DE 1KVP K	CW	(JPL-Sib)
M32	10-11-2013	1317	Sun	6941	SLSW DE Y2S3 QTC K. Y2S3 610 25 10 17.5 610 =	CW	(JPL-Sib)
M32	14-11-2013	0839	Thu	14411	XXX XXX WEGI WEGI 77906 52078 REKTORSTWO 7918 0965	CW	(JU)
M32	16-11-2013	0301	Sat	10168	ON8A (Cont&Ed) AR	CW	(JPL-Sib)
M32	16-11-2013	1119	Sat	5480	9SXV 9SXV RPT ADS K. LMNJ DE 9SXV RPT ADS K. (see N&O 194)	CW	(JPL-Sib)
M32	16-11-2013	1633	Sat	6832	GABS DE AM5O QTC K. 573 93 16 1959 573 = 479 = 67981 93160 78452 52046 71893 92380 5.487 6.. (Cont&Ed)	CW	(JPL-FNL)
M32	19-11-2013	0746	Tue	10933	Russian Mil. RGT77 5LG msg	CW	(DK8OK)
M32	21-11-2013	1018	Thu	10210	MRIJ DE TF3P K. VVV MRIJ DE TF3P K	CW	(JPL-Sib)
M32	29-11-2013	2035	Fri	4143	NCMK 908 34 30 0030 908 = ZDC 724 = 01953 30276 79243 70686 05986 ... (see N&O 194)	CW	(JPL-Sib)
M32	29-11-2013	2302	Fri	3348	PXSN DE SRBW K. R K. SGX7 DE SRBW K (see N&O 194)	CW	(JPL-Sib)
M32	29-11-2013	2307	Fri	3853	366 = 4488 9650 = 560 = 735 735 402 963 366 = 3922 2070 = (see N&O 194)	CW	(JPL-Sib)
M32	29-11-2013	2325	Fri	8116	LW2P DE NU1E	CW	(JPL-Sib)
M32	30-11-2013	2116	Sat	3293	030 = 388 = 6485 6326 44866 01044 EEE 4866 0104 1434 5427 9 = (see N&O 194)	CW	(JPL-Sib)
M32	30-11-2013	2144	Sat	6776	C2AR QTC 179 38 10135 179 =	CW	(JPL-Sib)
M32a	4-10-2013	0830		21438	RCV. QTC 674 Nawip 038. QTC 663 Prognoz Pogody	CW	(IARUMS)
M32a	4-10-2013	1005		21438	RCV 22222 5FGs	CW	(IARUMS)
M32a	4-10-2013	1312		21438	RCV. QYT4 QWH 9289 k.	CW	(IARUMS)
M32a	4-10-2013	1710		21438	RCV wkg RIR96. QYT4 QSX 16760 k	CW	(IARUMS)
M32a	6-10-2013	0710		21438	RHI99 DE RCV QSA? K	CW	(IARUMS)
M32a	6-10-2013	1527		21438	RMC99 DE RCV QTC 473 34 6 1908 473 =	CW	(IARUMS)
M32a	16-10-2013	1005		21438	RCV 22222 5FGs	CW	(IARUMS)
M32a	17-10-2013	0835		21438	RCV wkg RIR96. QYT4 QSX 16760 k	CW	(IARUMS)
M32a	9-11-2013	1838	Sat	8345	RBIZ: Russian Navy Ship PM-138. rcv de rbiz 129 3 9 2235 129 = 59660 92210 09002 = rbiz k	CW	(WP3)
M32a	9-11-2013	1847	Sat	8345	RMUW: Russian Navy Tug Shakter. rcv de rmuw 614 3 9 2235 614 = 59660 92205 09002 = rmuw k	CW	(WP3)
M32a	10-11-2013	0334	Sun	10543	RBE86 DE RCV QTC 631 46 9 1600 EEE. RBE86 QTC 731 46 9 1600 731 = NAWAREA .38 543 KART (Cont&Ed)	CW	(JPL-Sib)
M32a	12-11-2013	1354	Tue	12464	RFH70: Russian Destroyer Smetlivy 1354 CW ... QMG1 K. RCV de RFH70 R K ... QDW 5094 K	CW	(MPJ)
M32a	19-11-2013	0819	Tue	11155	RIT clg RHY51	CW	(DK8OK)
M32a	29-11-2013	0010	Fri	8345	VVV RCV DE RMUW QSA? QTC	CW	(Topol)
M32a	29-11-2013	0012	Fri	19201	RLD69 RLD69 DE RCV RCV QSA3 K	CW	(DK8OK)
M32a	29-11-2013	0228	Fri	8345	VVV RCV DE RCJG QSA? QTC. RCJG 281 3 29 0620 281 = 13972 90530 29002 = + RCJG	CW	(Topol)
M32a	29-11-2013	0231	Fri	8345	RCV DE RCJG QSL 979. RCV DE RCJG QRV	CW	(Topol)
M32a	29-11-2013	0429	Fri	8345	VVV RCV DE RFH70. RCV DE RFH70 QYT4 QSX 7748/9192	CW	(Topol)
M32c	11-11-2013	0940	Mon	8112	W-markers	CW	(Tom)
M32c	11-11-2013	1014	Mon	8112	SL7K DE IWW4 K	CW	(Tom)
M32c	11-11-2013	1019	Mon	8112	IWW4 OK = 38. 484 864 .27 .63 .39 C ? K	CW	(Tom)
M32c	11-11-2013	1200	Mon	8112	W-markers	CW	(MPJ)

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M32c	12-11-2013	1101	Tue	8112	W-marker at 1101, 1140, 1200, 1220, 1240	CW	(MPJ)
M32c	22-11-2013	1200	Fri	8112	W Markers at 1200 and 1220 UTC	CW	(Tom)
M42	5-11-2013	0150	Tue	16320	Russian Intel. Messages on links 13366, 41018	FSK 200/1000	(Dan)
M42	5-11-2013	0230	Tue	14880	Russian Intel. Messages on links 41010, 47964, 41023, 41018	FSK 200/1000	(Dan)
M42	6-11-2013	0150	Wed	16320	Russian Intel. Messages on links 13438, 57652, 41018, 43066, 41022	FSK 200/1000	(Dan)
M42	6-11-2013	0230	Wed	14880	Russian Intel. Messages on links 04114, 00058, 41018	FSK 200/1000	(Dan)
M42	9-11-2013	0647	Sat	13373.2	Russian diplo.	CROWD-36	(AB)
M42	11-11-2013	0150	Mon	16320	Russian Intel. Messages on links 00035, 41018, 63511, 04249, 57470, 32010, 10256	FSK 200/1000	(Dan)
M42	11-11-2013	0230	Mon	14880	Russian Intel. Messages on links 13366, 13334, 41018, 13322	FSK 200/1000	(Dan)
M42	12-11-2013	0150	Tue	16320	Russian Intel. Messages on links 62192, 30406, 64735, 40970	FSK 200/1000	(Dan)
M42	12-11-2013	0230	Tue	14880	Russian Intel. Messages on links 41008, 40986, 41008, 64518, 64197	FSK 200/1000	(Dan)
M42	12-11-2013	1425	Tue	14734	Russian Diplo/Intel. Repetitive string jv~iqeÑ9-(.b~q00352~g~g~qsnxoxvxuhjv~j~vvkdimtk	FSK 200/1000	(MPJ)
M42	13-11-2013	0150	Wed	16320	Russian Intel. Messages on link 43218	FSK 200/1000	(Dan)
M42	13-11-2013	0230	Wed	14880	Russian Intel. Messages on links 61498, 41018	FSK 200/1000	(Dan)
M42	14-11-2013	0835	Thu	10165	Russian Gov/Intel. Mark after every 50th group	Baudot 50/500	(BCI)
M42	14-11-2013	0835	Thu	10169	Russian Gov/Intel. Mark after every 50th group	Baudot 50/500	(BCI)
M42	18-11-2013	0150	Mon	16320	Russian Intel. Messages on links 05912, 29191, 42741, 41018, 61764	FSK 200/1000	(Dan)
M42	18-11-2013	0230	Mon	14880	Russian Intel. Messages on links 61498, 41018	FSK 200/1000	(Dan)
M42	20-11-2013	0150	Wed	16320	Russian Intel. Messages on links 45112, 27918	FSK 200/1000	(Dan)
M42	20-11-2013	0230	Wed	14880	Russian Intel. Messages on links 41018, 40986, 41082	FSK 200/1000	(Dan)
M42	21-11-2013	0150	Thu	16320	Russian Intel. Messages on links 32826, 63511, 12461, 54963, 35326, 21184, 41018, 41070	FSK 200/1000	(Dan)
M42	21-11-2013	0230	Thu	14880	Russian Intel. Messages on links 35953, 00019, 40960, 00840	FSK 200/1000	(Dan)
M42	22-11-2013	0150	Fri	16320	Russian Intel. Messages on links 05170, 08254	FSK 200/1000	(Dan)
M42	22-11-2013	0230	Fri	14880	Russian Intel. Messages on links 41016, 00058, 11301, 57400, 58458, 00056, 41018, 44403	FSK 200/1000	(Dan)
M42	22-11-2013	1025	Fri	19851	Russian intel.	Hybrid MFSK-80	(EW)
M42	25-11-2013	0150	Mon	16320	Russian Intel. Messages on links 41018, 32826	FSK 200/1000	(Dan)
M42	25-11-2013	0230	Mon	14880	Russian Intel. Messages on links 00058, 63517, 41018, 57352	FSK 200/1000	(Dan)
M42	26-11-2013	0150	Tue	16320	Russian Intel. Messages on links 15486, 41018	FSK 200/1000	(Dan)
M42	26-11-2013	0230	Tue	14880	Russian Intel. Messages on links 40986, 00032, 08304, 41018, 42272	FSK 200/1000	(Dan)

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M42	27-11-2013	0150	Wed	16320	Russian Intel. Messages on links 41018, 01235, 48839	FSK 200/1000	(Dan)
M42	27-11-2013	0230	Wed	14880	Russian Intel. Messages on links 00933, 41018, 16485, 40970, 41018	FSK 200/1000	(Dan)
M42	28-11-2013	0150	Thu	16320	Russian Intel. Messages on links 13366, 41023, 04159, 41018, 61503, 40976	FSK 200/1000	(Dan)
M42	28-11-2013	0230	Thu	14880	Russian Intel. Messages on links 04150, 40986, 63374, 41012, 32826	FSK 200/1000	(Dan)
M42	30-11-2013	1300	Sat	20374	Russian intel.	FSK 200/500	(HFD)
M42	30-11-2013	1310	Sat	18351	Russian intel.	FSK 200/500	(HFD)
M42	30-11-2013	1320	Sat	16249	Russian intel.	FSK 200/500	(HFD)
M45	19-11-2013	2100	Tue	5157		CW	(RH)
M51	4-11-2013	1609	Mon	8016	BT NR 80 N 04 17:09:11 1985 = YUBNQ JPDDL JHWYK ZBZT (as sent) HSLPC ...	CW	(MPJ)
M51	5-11-2013	1346	Tue	8016	BT NR 34 N 05 14:46:27 1985 BT LNBOZ JTQEP UI-RER TBBYU WVEIG HQZEC ...	CW	(MPJ)
M51a	5-11-2013	1258	Tue	6825	FAV22: French DIRISI Morse Practice Stn, Vernon. "...les francais ne savent pas encore le faire. sur six courses, on repart quand ... " CQ de FAV22 VA	CW	(MPJ)
M89	1-11-2013	0220	Fri	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	1-11-2013	0230	Fri	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	1-11-2013	0230	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	1-11-2013	0955	Fri	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1007	Fri	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	1-11-2013	1007	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	1-11-2013	1442	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1443	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	1-11-2013	1443	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	1-11-2013	1445	Fri	5588	(In chat: 4 5 5 U V EEEE R Y Y Y Y M (see N&O 194)	CW	(JPL)
M89	1-11-2013	1742	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1745	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1813	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	1-11-2013	1813	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	1-11-2013	1814	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1816	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	1820	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	1-11-2013	2047	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	2049	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	1-11-2013	2049	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	1-11-2013	2050	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	1-11-2013	2051	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	1006	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	2-11-2013	1006	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	2-11-2013	1008	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //8580	CW	(JPL)
M89	2-11-2013	1008	Sat	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	1018	Sat	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	1020	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	2-11-2013	1020	Sat	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-11-2013	1026	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	2-11-2013	1026	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	2-11-2013	2011	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	2013	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

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M89	2-11-2013	2015	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	2-11-2013	2015	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	2-11-2013	2020	Sat	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-11-2013	2020	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	2-11-2013	2020	Sat	8580	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	2-11-2013	2021	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //8580	CW	(JPL)
M89	2-11-2013	2023	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	2-11-2013	2023	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	2-11-2013	2201	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	2203	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	2204	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	2-11-2013	2206	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	0131	Sun	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	0905	Sun	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	0908	Sun	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	3-11-2013	0908	Sun	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	3-11-2013	1300	Sun	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	1303	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	1309	Sun	7777	L2SW DE M9NB M9NB MKM KK K K	CW	(JPL)
M89	3-11-2013	1954	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	3-11-2013	1954	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	3-11-2013	2201	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3-11-2013	2201	Sun	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	0309	Mon	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	0312	Mon	7582	V 7NPE (x3) DE Q45B (x2) (Cont'd) //8110	CW	(JPL)
M89	4-11-2013	0312	Mon	8110	V 7NPE (x3) DE Q45B (x2) (Cont'd) //7582	CW	(JPL)
M89	4-11-2013	0323	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	4-11-2013	0323	Mon	10180	3A7D in tfc: /66 = QSL? HR WK NR 09 V DKG6 DKG6 DKG6 DE 3A7D 3A7D	CW	(JPL)
M89	4-11-2013	0331	Mon	6666	YOSY DE WIJA	CW	(JPL)
M89	4-11-2013	0331	Mon	6666	In tfc: 29 CK 95 55 1023 0934 RMKS 74.0 TO 7149 AR (see N&O 194)	CW	(JPL)
M89	4-11-2013	1017	Mon	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1024	Mon	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1026	Mon	4225	V 7NPE (x3) DE Q45B (x2) (Cont'd) sending Q45B vice QV5B	CW	(JPL)
M89	4-11-2013	1228	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	4-11-2013	1228	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	4-11-2013	1232	Mon	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1235	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4-11-2013	1235	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4-11-2013	1236	Mon	4225	V 7NPE (x3) DE Q45B (x2) (Cont'd) //5500	CW	(JPL)
M89	4-11-2013	1236	Mon	5500	V 7NPE (x3) DE Q45B (x2) (Cont'd) //4225	CW	(JPL)
M89	4-11-2013	1240	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //8580	CW	(JPL)
M89	4-11-2013	1240	Mon	8580	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	4-11-2013	1301	Mon	5485	ASDF msg: HR SVC GA. NR 24 2100 RMKS 2478 TO 0103/2474 = (see N&O 194)	CW	(JPL)
M89	4-11-2013	1525	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1531	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1535	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	1536	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)

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M89	4-11-2013	1536	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4-11-2013	1537	Mon	4225	V 7NPE (x3) DE Q45B (x2) (Cont'd) //5500	CW	(JPL)
M89	4-11-2013	1537	Mon	5500	V 7NPE (x3) DE Q45B (x2) (Cont'd) //4225	CW	(JPL)
M89	4-11-2013	1540	Mon	3330	In tfc: 63AN UNA4 67U6 (Cont'ed) AR	CW	(JPL)
M89	4-11-2013	2119	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	2120	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	4-11-2013	2120	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	4-11-2013	2125	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-11-2013	2126	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4-11-2013	2126	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4-11-2013	2127	Mon	4225	V 7NPE (x3) DE Q45B (x2) (Cont'd) //5500	CW	(JPL)
M89	4-11-2013	2127	Mon	5500	V 7NPE (x3) DE Q45B (x2) (Cont'd) //4225	CW	(JPL)
M89	4-11-2013	2130	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-11-2013	0938	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	5-11-2013	0938	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5-11-2013	1010	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5-11-2013	1010	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5-11-2013	1014	Tue	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5-11-2013	1016	Tue	7582	V 7NPE (x3) DE Q45B (x2) (Cont'd)	CW	(JPL)
M89	5-11-2013	1020	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	5-11-2013	1020	Tue	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	5-11-2013	1026	Tue	4225	V 7NPE (x3) DE Q45B (x2) (Cont'd) sending Q45B vice QV5B followed by an UGT msg (see N&O 194)	CW	(JPL)
M89	5-11-2013	1224	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	5-11-2013	1224	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5-11-2013	1547	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	5-11-2013	1547	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	5-11-2013	1550	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	6-11-2013	2020	Wed	5320	v DKG6 DKG6 DKG6 de 3A7D 3A7D	CW	(FN)
M89	9-11-2013	1159	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	9-11-2013	1200	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	9-11-2013	1204	Sat	7788	(In tfc: 4563 UD34 TDUU (Cont'ed) 77777777 (see N&O 194)	CW	(JPL)
M89	9-11-2013	1248	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	9-11-2013	1249	Sat	5805	(In tfc: N46U 7763 TUU5 A4.. (Cont'ed) AR	CW	(JPL)
M89	10-11-2013	0320	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	10-11-2013	0320	Sun	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	10-11-2013	0325	Sun	8750	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	10-11-2013	0332	Sun	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10-11-2013	0332	Sun	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	10-11-2013	0337	Sun	9206	In tfc: A7N4 D5AN AU53 36ND (Cont'ed) AR QSL? HR WK NR 370 HR CQ NIL K EEEEE NR CQ NIL SK	CW	(JPL)
M89	10-11-2013	1315	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	10-11-2013	1315	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	10-11-2013	1320	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	10-11-2013	1326	Sun	7602	In tfc û handsent: = COMM/ 223./REZ443.4 K EEE (see N&O 194) //3642	CW	(JPL)
M89	10-11-2013	1754	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10-11-2013	1757	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	10-11-2013	1757	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	10-11-2013	1800	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)

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M89	10-11-2013	1800	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	10-11-2013	2125	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10-11-2013	2127	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	10-11-2013	2127	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	11-11-2013	1127	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	11-11-2013	1135	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	11-11-2013	1135	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	11-11-2013	1853	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	11-11-2013	1853	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	11-11-2013	2058	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	11-11-2013	2101	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	11-11-2013	2101	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	11-11-2013	2103	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	11-11-2013	2105	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	11-11-2013	2105	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	11-11-2013	2109	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	12-11-2013	1116	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	12-11-2013	1116	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	12-11-2013	1120	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	12-11-2013	1120	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	12-11-2013	1129	Tue	8580	In tfc: 3T7D ... (Cont'd) W K N HW .. 3 K QSL? K	CW	(JPL)
M89	12-11-2013	1144	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	12-11-2013	1144	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	12-11-2013	1147	Tue	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	12-11-2013	1150	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	12-11-2013	1150	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	12-11-2013	2004	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	12-11-2013	2006	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	12-11-2013	2006	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	12-11-2013	2007	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	12-11-2013	2007	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	12-11-2013	2008	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	12-11-2013	2008	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	12-11-2013	2020	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	12-11-2013	2020	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	12-11-2013	2022	Tue	5566	VV BCAP DE ORL2 (see N&O 194)	CW	(JPL)
M89	12-11-2013	2048	Tue	5519	In tfc: U6DA DT43 34T3 5U7U (see N&O 194)	CW	(JPL)
M89	12-11-2013	2229	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	12-11-2013	2231	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	12-11-2013	2231	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	12-11-2013	2232	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	12-11-2013	2232	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	12-11-2013	2234	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	12-11-2013	2234	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	12-11-2013	2236	Tue	8580	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	12-11-2013	2241	Tue	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	0346	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	1159	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	13-11-2013	1159	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	13-11-2013	1201	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	1206	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)

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M89	13-11-2013	1208	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	13-11-2013	1208	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	13-11-2013	1210	Wed	6666	In tfc VV BT BD3T BT7U 5... (see N&O 194)	CW	(JPL)
M89	13-11-2013	1816	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	13-11-2013	1816	Wed	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	13-11-2013	1820	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	13-11-2013	1828	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	1832	Wed	5230	In tfc û handsent: 576A5N4T D56A 3N57 3D.. (Cont'd) AR	CW	(JPL)
M89	13-11-2013	1858	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	1900	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	13-11-2013	1905	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	13-11-2013	1905	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	13-11-2013	2119	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	13-11-2013	2119	Wed	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	13-11-2013	2120	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	13-11-2013	2125	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	14-11-2013	0305	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	14-11-2013	0305	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	14-11-2013	1213	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	14-11-2013	1213	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	14-11-2013	1216	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5801	CW	(JPL)
M89	14-11-2013	1216	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	14-11-2013	1216	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	14-11-2013	1218	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	14-11-2013	1218	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	14-11-2013	1219	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	14-11-2013	1220	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	14-11-2013	1220	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	14-11-2013	1246	Thu	5455	In tfc: HR MSG = US3T AUU7 6NBB TB.. (Cont'd) TULLLL TO HR SK SK	CW	(JPL)
M89	14-11-2013	1741	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	14-11-2013	2014	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	14-11-2013	2016	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	14-11-2013	2016	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	14-11-2013	2018	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	14-11-2013	2020	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	14-11-2013	2020	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	15-11-2013	1129	Fri	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	15-11-2013	1129	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	15-11-2013	1140	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	1517	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	1520	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	15-11-2013	1556	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	1559	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	15-11-2013	1559	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	15-11-2013	1600	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	15-11-2013	1600	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	15-11-2013	1602	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	15-11-2013	1602	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	15-11-2013	1920	Fri	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)

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M89	15-11-2013	1920	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	15-11-2013	1925	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	1926	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	15-11-2013	1926	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	15-11-2013	1927	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	15-11-2013	1927	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	15-11-2013	1928	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	15-11-2013	1928	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	15-11-2013	2204	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	2205	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	15-11-2013	2206	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	15-11-2013	2206	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	15-11-2013	2208	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	15-11-2013	2208	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	15-11-2013	2220	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	16-11-2013	0254	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	16-11-2013	0254	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	16-11-2013	1104	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	16-11-2013	1105	Sat	5460	In tfc: 353D 56NT 67NA 475T (see N&O 194)	CW	(JPL)
M89	16-11-2013	1130	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	16-11-2013	1130	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	16-11-2013	1318	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	16-11-2013	1318	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	16-11-2013	1320	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	16-11-2013	1325	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	16-11-2013	1601	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	16-11-2013	1601	Sat	7602	3A7D into UGT COMM msg. QSL? HR WK NR 33 K. Return to round slip //3642	CW	(JPL)
M89	16-11-2013	1613	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	16-11-2013	1620	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	16-11-2013	1859	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	16-11-2013	1901	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	16-11-2013	1903	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //8580	CW	(JPL)
M89	16-11-2013	1903	Sat	8580	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	16-11-2013	1905	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	16-11-2013	1905	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	16-11-2013	1908	Sat	6666	In tfc: RMKS 1296 TO 6426 K. R RMKS 1296 TO 6426 K (see N&O 194)	CW	(JPL)
M89	16-11-2013	2347	Sat	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	16-11-2013	2350	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //8580	CW	(JPL)
M89	16-11-2013	2350	Sat	8580	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	17-11-2013	0002	Sun	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	17-11-2013	0002	Sun	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	17-11-2013	0008	Sun	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	17-11-2013	1226	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	17-11-2013	1226	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	17-11-2013	1227	Sun	5500	In tfc, handsent: 346N A44N TNUT U64A (Cont'd)	CW	(JPL)
M89	17-11-2013	1238	Sun	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	17-11-2013	1239	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	17-11-2013	1239	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	17-11-2013	1246	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

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M89	17-11-2013	1251	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	17-11-2013	1251	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	17-11-2013	1619	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	17-11-2013	1620	Sun	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	17-11-2013	1620	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	17-11-2013	1625	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	17-11-2013	1625	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	17-11-2013	1626	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	17-11-2013	1627	Sun	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	17-11-2013	1627	Sun	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	18-11-2013	1123	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	18-11-2013	1123	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	18-11-2013	1707	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	18-11-2013	1707	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	18-11-2013	1928	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	18-11-2013	1929	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	18-11-2013	1929	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	18-11-2013	1930	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	18-11-2013	1930	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	18-11-2013	1932	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	18-11-2013	1932	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	18-11-2013	1933	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	18-11-2013	1933	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	18-11-2013	2153	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	18-11-2013	2155	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	18-11-2013	2202	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	1124	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	19-11-2013	1124	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	19-11-2013	1128	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	1440	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	19-11-2013	1440	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	19-11-2013	1442	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	1812	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	19-11-2013	1812	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	19-11-2013	1813	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	1820	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	19-11-2013	1916	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	1917	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	19-11-2013	1917	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	19-11-2013	1919	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	19-11-2013	1919	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	19-11-2013	1920	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	19-11-2013	1920	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	19-11-2013	2040	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2041	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2042	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	19-11-2013	2042	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	19-11-2013	2043	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	19-11-2013	2043	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	19-11-2013	2043	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2227	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

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M89	19-11-2013	2228	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2230	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	19-11-2013	2230	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	19-11-2013	2232	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2233	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	19-11-2013	2233	Tue	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	19-11-2013	2248	Tue	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	19-11-2013	2248	Tue	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	19-11-2013	2255	Tue	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	19-11-2013	2320	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	20-11-2013	0113	Wed	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	20-11-2013	0113	Wed	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	20-11-2013	0116	Wed	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd))	CW	(JPL)
M89	20-11-2013	0120	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	20-11-2013	0120	Wed	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	20-11-2013	0121	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-11-2013	0121	Wed	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-11-2013	0122	Wed	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	0124	Wed	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	0311	Wed	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	20-11-2013	0311	Wed	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	20-11-2013	0315	Wed	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	0320	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	20-11-2013	0320	Wed	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	20-11-2013	0321	Wed	7581	In tfc: AGN 4105/EX .122 RMKS 452.71. TO 4..37.8 = CW YQ5/ZVO AR (N&O 194)	(JPL)	
M89	20-11-2013	0333	Wed	7825	In tfc: U5AD NU63 DE7T 44AB T7UN 565U (Cont'd)	CW	(JPL)
M89	20-11-2013	0339	Wed	7838	(n tfc: AR RPT 1W.. (Both stations on this freq)	CW	(JPL)
M89	20-11-2013	1014	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	20-11-2013	1014	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	20-11-2013	1018	Wed	8022	In tfc: 93 /EX 815 RMKS/... AR R60./EX .15 R..9 TO L90/... AR OK	CW	(JPL)
M89	20-11-2013	1024	Wed	6838	In tfc: 7556 7T4N 3753 7A6D 33TT (Cont'd) AR AGN	CW	(JPL)
M89	20-11-2013	1030	Wed	6655	In callup: VV WGA7 DE SQRM QSA EEE (see N&O 194)	CW	(JPL)
M89	20-11-2013	1102	Wed	5678	2SLC in tfc: = 4N5D A33U U6ND UD63 N7UT (Cont'd)	CW	(JPL)
M89	20-11-2013	1103	Wed	5559	In tfc: 3N54 ANTT (Cont'd) 05 = N6U7 .TND 7A.U (see N&O 194)	CW	(JPL)
M89	20-11-2013	1126	Wed	5566	In tfc: 43UN 6UDN UA36 DA53 UN4A (Cont'd) AR 7. E	CW	(JPL)
M89	20-11-2013	1132	Wed	5687	(n tfc: 6NU3 37D5 734A N7TU 7DUD (Cont'd) III = 6DAT 7ND3 3436 7N75 (Cont'd)	CW	(JPL)
M89	20-11-2013	1148	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	20-11-2013	1148	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-11-2013	1206	Wed	8073	(n tfc: 4T4N N343 53DU 4DT4 (Cont'd)	CW	(JPL)
M89	20-11-2013	1719	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	1720	Wed	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	20-11-2013	1720	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	20-11-2013	1725	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)

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M89	20-11-2013	1725	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-11-2013	1726	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-11-2013	1726	Wed	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-11-2013	1728	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	20-11-2013	1728	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	20-11-2013	1729	Wed	4444	In tfc: MSG NR..... 9 1120 2230 = 3N4D TDDA T5ND 35AN 34AT U6N7 (see N&O 194)	CW	(JPL)
M89	20-11-2013	2025	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	2026	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-11-2013	2026	Wed	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-11-2013	2027	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	20-11-2013	2027	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-11-2013	2028	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	20-11-2013	2028	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	20-11-2013	2155	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-11-2013	2155	Wed	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-11-2013	2157	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	2203	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-11-2013	2204	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	20-11-2013	2204	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	20-11-2013	2220	Wed	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	20-11-2013	2220	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	21-11-2013	0152	Thu	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	21-11-2013	0152	Thu	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	21-11-2013	0154	Thu	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	0158	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	21-11-2013	0158	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	21-11-2013	0201	Thu	6775	F9AG DE JCY9 AU43 A4DN D65. ..AU 5NT7 7TAD (see N&O 194)	CW	(JPL)
M89	21-11-2013	0955	Thu	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	0959	Thu	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	21-11-2013	0959	Thu	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	21-11-2013	1006	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	21-11-2013	1006	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	21-11-2013	1033	Thu	7710	In tfc: 33W = = = 6TD4 K. Both stations on this freq. (see N&O 194)	CW	(JPL)
M89	21-11-2013	1249	Thu	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	1250	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-11-2013	1250	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-11-2013	1253	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	1256	Thu	5555	In tfc: AR = 42W = = K 43.. = = = 7U4D AR R 10W = = = TTAT AR (see N&O 194)	CW	(JPL)
M89	21-11-2013	1550	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	1551	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	21-11-2013	1551	Thu	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	21-11-2013	1726	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	21-11-2013	1726	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	21-11-2013	1727	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-11-2013	1727	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-11-2013	1729	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	21-11-2013	1729	Thu	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M89	21-11-2013	1920	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	21-11-2013	1920	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	21-11-2013	1925	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-11-2013	1928	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-11-2013	1928	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-11-2013	1930	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	21-11-2013	1930	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	22-11-2013	0209	Fri	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	22-11-2013	0209	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	22-11-2013	1256	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	22-11-2013	1259	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	22-11-2013	1259	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	22-11-2013	1300	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	22-11-2013	1300	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	22-11-2013	1304	Fri	5555	In chat: AS BOZ USE UPSB WK see N&O 194)	CW	(JPL)
M89	22-11-2013	1314	Fri	5866	In chat: R RPT 91W K. R RPT 91W N37A N37A K. Both stations on this freq. (see N&O 194)	CW	(JPL)
M89	22-11-2013	1328	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	22-11-2013	1328	Fri	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	22-11-2013	1838	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	22-11-2013	1840	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	26-11-2013	2127	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	26-11-2013	2132	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	26-11-2013	2134	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	26-11-2013	2134	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3642	CW	(JPL)
M89	26-11-2013	2136	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	0112	Wed	8811	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	0120	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	27-11-2013	0120	Wed	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	27-11-2013	1335	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	27-11-2013	1335	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	27-11-2013	1337	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1339	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1341	Wed	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1343	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1725	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1726	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1727	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	27-11-2013	1727	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	27-11-2013	1728	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	1733	Wed	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	2038	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	2040	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	2042	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	27-11-2013	2042	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	27-11-2013	2044	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	27-11-2013	2050	Wed	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	0037	Thu	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	0040	Thu	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	28-11-2013	0040	Thu	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	28-11-2013	0045	Thu	6666	(n chat: R R DE 443T 43P4HW K. NN NR 1 RT RR NR	CW	(JPL)

enigma	date	UTC	day	frequency	remarks	mode	contributor
0120 NR 120 K (see N&O 194)							
M89	28-11-2013	0124	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	28-11-2013	0124	Thu	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	28-11-2013	0126	Thu	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	0127	Thu	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	1213	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	1215	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	28-11-2013	1215	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	28-11-2013	1218	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	28-11-2013	1218	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	28-11-2013	1220	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	28-11-2013	1220	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	28-11-2013	1226	Thu	5555	In chat: QSL 20 EEEE 2027 K K K K	CW	(JPL)
M89	28-11-2013	1231	Thu	5555	In chat: 30 AR K. FM = 47N5EEE. FM = 47D6 AR K (see N&O 194)	CW	(JPL)
M89	28-11-2013	1702	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	1703	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	28-11-2013	1703	Thu	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	28-11-2013	1704	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	28-11-2013	1704	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	28-11-2013	1705	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	28-11-2013	1705	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	28-11-2013	1707	Thu	4444	In chat: FOVQ V. R R. R HN AGN HR. QSA 2 K (see N&O 194)	CW	(JPL)
M89	28-11-2013	1720	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	28-11-2013	1720	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	28-11-2013	1726	Thu	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	1907	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	1908	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	28-11-2013	1908	Thu	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	28-11-2013	1909	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	28-11-2013	1909	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	28-11-2013	1910	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	28-11-2013	1910	Thu	4444	In chat: = = = = 7 VVV = = 45 = VV 7G NR 7G NR (see N&O 194)	CW	(JPL)
M89	28-11-2013	1910	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	28-11-2013	1929	Thu	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	2054	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	28-11-2013	2055	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	28-11-2013	2055	Thu	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	28-11-2013	2056	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	28-11-2013	2056	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	28-11-2013	2056	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	28-11-2013	2057	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	1200	Fri	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	1204	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	29-11-2013	1204	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	29-11-2013	1206	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	1206	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	29-11-2013	1328	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	1544	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M89	29-11-2013	1546	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	29-11-2013	1546	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	29-11-2013	1548	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	29-11-2013	1548	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	29-11-2013	1549	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	1549	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	29-11-2013	1555	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	1750	Fri	3330	2SLC in tfc: 7NR /6380 AR = 80540/2.65/0300/.1. NR/6380 AR = 80..0/2..5/0300/1.7NR/6380. AR V MW3D DE 2SLC	CW	(JPL)
M89	29-11-2013	1758	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	1759	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	29-11-2013	1759	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	29-11-2013	1800	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	1800	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	29-11-2013	1808	Fri	5421	In tfc: 43U5 AU43 AU34 N6A5 A3U5 T7AD (see N&O 194)	CW	(JPL)
M89	29-11-2013	1816	Fri	5535	In tfc: NR 8725 TIME TIME 0217 K K. .. QS. AR O DE .. (see N&O 194)	CW	(JPL)
M89	29-11-2013	1817	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	2012	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	2013	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	29-11-2013	2013	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	29-11-2013	2014	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	29-11-2013	2014	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	29-11-2013	2015	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	2015	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	29-11-2013	2020	Fri	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	29-11-2013	2020	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	29-11-2013	2028	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	2047	Fri	3852	FBB8 = 0357 0357 R EEEE K. RPT K. 93W = T445 T445 K (see N&O 194)	CW	(JPL)
M89	29-11-2013	2219	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	2252	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	29-11-2013	2253	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	29-11-2013	2253	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	29-11-2013	2254	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	29-11-2013	2254	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	29-11-2013	2255	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	29-11-2013	2255	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	29-11-2013	2318	Fri	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	29-11-2013	2318	Fri	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	29-11-2013	2320	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	29-11-2013	2338	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	29-11-2013	2338	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	29-11-2013	2342	Fri	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	29-11-2013	2342	Fri	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	30-11-2013	0230	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	0232	Sat	8888	In tfc: 7567 5TD3 N445 U6DA 7364 3UNA (Cont'Ed)	CW	(JPL)
M89	30-11-2013	0256	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	30-11-2013	0256	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	30-11-2013	1052	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M89	30-11-2013	1057	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	1101	Sat	5555	In tfc: 3AU7 567A DN45 6.UD (Cont'Ed) UT3465 LND7TAU3456D.7NUA3 (see N&O 194)	CW	(JPL)
M89	30-11-2013	1111	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	30-11-2013	1111	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	30-11-2013	1720	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	30-11-2013	1726	Sat	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	1729	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	30-11-2013	1729	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	30-11-2013	1917	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	30-11-2013	1917	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	30-11-2013	1918	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	1919	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	1920	Sat	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	30-11-2013	1920	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	30-11-2013	1930	Sat	4885	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2115	Sat	4885	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2116	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2122	Sat	3378	In tfc: 43D7 NT66 U35U 7.5U AD7N AU7D (see N&O 194)	CW	(JPL)
M89	30-11-2013	2139	Sat	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2304	Sat	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	30-11-2013	2304	Sat	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	30-11-2013	2304	Sat	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2307	Sat	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2308	Sat	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	30-11-2013	2313	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	30-11-2013	2313	Sat	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	30-11-2013	2320	Sat	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	30-11-2013	2320	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
MC03	29-11-2013	2045	Fri	3948	36N U3UNNN ATT 43 36N U3TNU6 73N3343 AT3 43 (see N&O 194)	CW	(JPL-Sib)
MX	19-10-2013	2146		7091.5	Beacon "V"	CW	(IARUMS)
MX	12-11-2013	1338	Tue	10871.7	Beacon "D" Odessa/Sevastopol	CW	(MPJ)
MX	12-11-2013	1339	Tue	10871.9	Beacon "S" Severomorsk	CW	(MPJ)
MX	12-11-2013	1340	Tue	10872	Beacon "C" Moscow	CW	(MPJ)
MX	24-11-2013	2222	Sun	5055.5	Beacon "V"	CW	(AB)
MX	25-11-2013	1258	Mon	16331.7	Beacon "D" Odesssa/Sevastopol	CW	(MPJ)
MX	25-11-2013	1258	Mon	16331.9	Beacon "S" Severomorsk	CW	(MPJ)
MX	25-11-2013	1258	Mon	16332	Beacon "C" Moscow	CW	(MPJ)
MX	25-11-2013	1742	Mon	5153.8	Beacon "P"	CW	(AB)
MX	25-11-2013	1742	Mon	5153.9	Beacon "S"	CW	(AB)
MX	25-11-2013	1742	Mon	7038.8	Beacon "P"	CW	(AB)
MX	25-11-2013	1742	Mon	7038.9	Beacon "S"	CW	(AB)
MX	25-11-2013	1742	Mon	10871.7	Beacon "D"	CW	(AB)
MX	25-11-2013	1742	Mon	10872	Beacon "C"	CW	(AB)
MX	25-11-2013	2035	Mon	3593.7	Beacon "D"	CW	(AB)
MX	25-11-2013	2035	Mon	3593.9	Beacon "S"	CW	(AB)
MX	25-11-2013	2035	Mon	4557.7	Beacon "D"	CW	(AB)
MX	25-11-2013	2035	Mon	4557.9	Beacon "S"	CW	(AB)
MX	27-11-2013	0030	Wed	16332.3	Beacon "K" Petropavlovsk	CW	(Dan)

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MX	27-11-2013	0030	Wed	16332.4	Beacon "M" Magadan	CW	(Dan)
MX	30-11-2013	1104	Sat	7038.8	Beacon "P"	CW	(AB)
MX	30-11-2013	1104	Sat	7038.9	Beacon "S"	CW	(AB)
MX	30-11-2013	1104	Sat	8494.8	Beacon "P"	CW	(AB)
MX	30-11-2013	1104	Sat	10871.7	Beacon "D"	CW	(AB)
MX	30-11-2013	1104	Sat	10871.9	Beacon "S"	CW	(AB)
MX	30-11-2013	1104	Sat	10872	Beacon "C"	CW	(AB)
MX	30-11-2013	1104	Sat	13527.7	Beacon "D"	CW	(AB)
MX	30-11-2013	1104	Sat	13527.9	Beacon "S"	CW	(AB)
MX	30-11-2013	1104	Sat	16331.7	Beacon "D"	CW	(AB)
MX	30-11-2013	1104	Sat	16331.9	Beacon "S"	CW	(AB)
MX	30-11-2013	1104	Sat	16332	Beacon "C"	CW	(AB)
MX	30-11-2013	1104	Sat	20047.7	Beacon "D"	CW	(AB)
MX	30-11-2013	1104	Sat	20047.9	Beacon "S"	CW	(AB)
MX	30-11-2013	1104	Sat	20048	Beacon "C"	CW	(AB)
S06	2-11-2013	2000	Sat	4040	319 0	AM	(HFD)
S06	2-11-2013	2030	Sat	4784	857 0	AM	(HFD)
S06	2-11-2013	2100	Sat	3569	319 0	AM	(HFD)
S06	2-11-2013	2130	Sat	4017	857 0	AM	(HFD)
S06	11-11-2013	2015	Mon	6830		USB	(RH)
S06	14-11-2013	1905	Thu	3838	349 349 349 00000	USB	(RH/HFD)
S06	16-11-2013	1935	Sat	3834	426 0	AM	(HFD)
S06	21-11-2013	1900	Thu	3192	349 0	AM	(HFD)
S06	23-11-2013	1600	Sat	7387	764 0	AM	(HFD)
S06	23-11-2013	1905	Sat	3834	426 426 426 00000	AM	(GHn)
S06	23-11-2013	1935	Sat	3834	426 0	AM	(HFD)
S06	25-11-2013	1900	Mon	3192	349 0	AM	(HFD)
S06	25-11-2013	1915	Mon	8180	805 0	AM	(HFD)
S06	25-11-2013	2015	Mon	6830	805 0	AM	(HFD)
S06	27-11-2013	0411	Wed	15721	i.p.	USB	(CCar)
S06s	1-11-2013	0700	Fri	7150	196 208 5 52401	USB	(HFD)
S06s	1-11-2013	0710	Fri	8215	196	USB	(HFD)
S06s	1-11-2013	0930	Fri	11780	516 938/7 52401	USB	(HFD)
S06s	1-11-2013	0940	Fri	12570	516	USB	(HFD)
S06s	2-11-2013	1200	Sat	8680	254 980 6 46062	USB	(HFD)
S06s	2-11-2013	1210	Sat	8260	254	USB	(HFD)
S06s	5-11-2013	1510	Tue	9170	537 982 6 39534 17228 15636 47891 23247 17099 982 6 00000	USB	
S06s	11-11-2013	0840	Mon	9770	371 904 5 33796 13577 74526 46647 79302 904 5 00000	USB	(RH)
S06s	12-11-2013	1510	Tue	9170	537 982 6 39534 17228 15636 47891 23247 17099 982 6 00000	USB	
S06s	14-11-2013	0930	Thu	11760	516 987 5 33796 13578 47526 46247 25616 987 5 00000	USB	(JU)
S06s	14-11-2013	1200	Thu	12155	425 896 7 88146	USB	(HFD)
S06s	14-11-2013	1210	Thu	10920	425	USB	(HFD)
S06s	15-11-2013	0610	Fri	8813	493 801 5 83981 24935 58604 71428 03092 801 5 00000	USB	(Briz)
S06s	15-11-2013	0710	Fri	8215	196 802 5 30485 96632 62537 53317 06675 802 5 00000	USB	(Briz)
S06s	15-11-2013	0800	Fri	5810	278 961 5 83280	USB	(HFD)
S06s	15-11-2013	0810	Fri	6770	278	USB	(HFD)

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S06s	17-11-2013	0630	Sun	13470	524 981 6 57634 80956 23150 67453 89672 45412 981 6 00000	USB	(AB/RH)
S06s	21-11-2013	0900	Thu	5410	624 538 7 10544	USB	(HFD)
S06s	21-11-2013	0900	Thu	12952	167 923 5 75155	USB	(HFD)
S06s	21-11-2013	0910	Thu	6770	624	USB	(HFD)
S06s	21-11-2013	0910	Thu	13565	167	USB	(HFD)
S06s	21-11-2013	0930	Thu	8812	314	USB	(HFD)
S06s	21-11-2013	0940	Thu	9540	314	USB	(HFD)
S06s	25-11-2013	1300	Mon	8420	831 592 6 26734	USB	(HFD)
S06s	25-11-2013	1310	Mon	10635	831	USB	(HFD)
S06s	26-11-2013	0700	Tue	5250	374 960 5 88620	USB	(HFD)
S06s	26-11-2013	0710	Tue	6320	374	USB	(HFD)
S06s	26-11-2013	1000	Tue	6440	893 401 5 29245	USB	(HFD)
S06s	26-11-2013	1010	Tue	5660	893	USB	(HFD)
S06s	26-11-2013	1500	Tue	6845	537 821 6 57214	USB	(HFD)
S06s	26-11-2013	1510	Tue	9170	537	USB	(HFD)
S06s	27-11-2013	0830	Wed	7335	745 209 6 10597	USB	(HFD)
S06s	27-11-2013	0840	Wed	9260	328 410 5 33796	USB	(HFD)
S06s	27-11-2013	0840	Wed	11830	745	USB	(HFD)
S06s	27-11-2013	0850	Wed	11415	328	USB	(HFD)
S06s	27-11-2013	1000	Wed	12365	729 803/5 88620	USB	(HFD)
S06s	27-11-2013	1010	Wed	14280	729	USB	(HFD)
S06s	27-11-2013	1230	Wed	4580	967	USB	(HFD)
S06s	27-11-2013	1240	Wed	6420	967 203 5 56024	USB	(HFD)
S11a	1-11-2013	0816	Fri	7504	585/00	USB	(KK2)
S11a	1-11-2013	0915	Fri	7504	484/00	USB	(HFD)
S11a	4-11-2013	1015	Mon	12530	471/36	USB	(HFD)
S11a	8-11-2013	1020	Fri	9610	425/30	USB	(HFD)
S28	25-11-2013	1000	Mon	4625	MDZhB 05 307 VIVACHe 24 85 65 45	USB	(AB)
S28	25-11-2013	1943	Mon	4625	Buzzer	USB	(AB)
S30	25-11-2013	1942	Mon	3756	Pip	USB	(AB)
S32	25-11-2013	1941	Mon	3829	Squeaky Wheel	USB	(AB)
SDN	10-11-2013	1032	Sun	21000	MFA Khartoum wkg Sudanese embassy Yemen. Voice traffic	USB	(IARUMS)
SDN	10-11-2013	1032	Sun	21002.1	MFA Khartoum wkg Sudanese embassy Yemen. Voice traffic	Pactor-1 100/170	(IARUMS)
V07	3-11-2013	0100	Sun	18074	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000	USB	(Dan/Sealord)
V07	3-11-2013	0120	Sun	15874	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000	USB	(Dan/Sealord)
V07	3-11-2013	0140		14374	883 883 883 1 133 53 94293 54937 31318 ... 37881 99908 83033 000 000	USB	(Dan/Sealord)
V07	10-11-2013	0100	Sun	18074	883 883 883 000 000	AM	(Token)
V07	10-11-2013	0120	Sun	15874	883 883 883 000 000	AM	(Token)
V07	17-11-2013	0100	Sun	18074	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000	USB	(Dan/RH)
V07	17-11-2013	0120	Sun	15874	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000	USB	(Dan)
V07	17-11-2013	0140	Sun	14374	883 883 883 1 (x5) 251 67 (x2) 42313 2910080375 000 000	USB	(Dan)
V07	24-11-2013	0100	Sun	18074	883 883 883 000 000	USB	(Dan)
V07	24-11-2013	0120	Sun	15874	883 883 883 000 000	USB	(Dan)

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V13	10-11-2013	0600	Sun	8300	New Star. Tune followed by coded messages	USB	(AB-HK)
V13	10-11-2013	0700	Sun	9522	New Star. Tune followed by coded messages	USB	(AB-HK)
V13	10-11-2013	0813	Sun	9522	New Star i.p.	USB	(AB-HK)
V13	12-11-2013	0610	Tue	8300	New Star i.p. Barely audible	USB	(AB-HK)
V13	23-11-2013	0711	Sat	9522	New Star in progress	USB	(AB-HK)
V13	24-11-2013	0710	Sun	9522	New Star in progress	USB	(AB-HK)
V13	24-11-2013	0800	Sun	9522	New Star #4. Tune followed by coded messages in Chinese	USB	(AB-HK)
V13	25-11-2013	0700	Mon	9522	New Star #4. Tune followed by coded messages in Chinese	USB	(AB-HK)
V13	26-11-2013	0700	Tue	9522	New Star #4. Tune followed by coded messages in Chinese	USB	(AB-HK)
V13	26-11-2013	0800	Tue	9522	New Star #4. Tune followed by coded messages in Chinese	USB	(AB-HK)
V24	5-11-2013	1430	Tue	6310		USB	(Token)
V24	6-11-2013	1430	Wed	6310		USB	(Token)
V24	6-11-2013	1530	Wed	6310		USB	(Token)
V24	8-11-2013	1300	Fri	4900		USB	(Token)
V24	12-11-2013	1300	Tue	4900		USB	(Token)
V24	13-11-2013	1300	Wed	4900		USB	(Token)
V24	15-11-2013	1430	Fri	6310		USB	(Token)
V24	16-11-2013	1430	Sat	6310		USB	(Token)
VC01	9-9-2013	1400		8715	Chinese Robot	USB	(NC)
VC01	11-9-2013	1315		8715	Chinese Robot	USB	(Token)
VC01	1-11-2013	1440	Fri	5799	Chinese Robot	USB	(JPL-HK)
VC01	4-11-2013	1309	Mon	5799	Chinese Robot	USB	(AB-HK)
VC01	12-11-2013	0700	Tue	8715	Chinese Robot	USB	(NC-J)
VC01	12-11-2013	0734	Tue	8715	Chinese Robot	USB	(AB-HK)
VC01	15-11-2013	0342	Fri	17392	Chinese YL robot	USB	(CCAr)
VC01	26-11-2013	1209	Tue	5799	Chinese Robot i.p.	USB	(AB-HK)
VC01	27-11-2013	1345	Wed	4175	Chinese Robot	USB	(NC)
VC03	25-11-2013	0605	Mon	8300	i.p. 4FG messages	USB	(AB-HK)
X06	14-11-2013	1234	Thu	13520	Mazielka. Sequence: 612534	USB	(MCO)
X06	14-11-2013	1246	Thu	17510	Mazielka. Sequence: 612534	USB	(MCO)
X06	21-11-2013	1254	Thu	18575	Mazielka. Sequence: 352416	USB	(MCO)
XPA	30-10-2013	0600		10868	813 813 813 1 07203 00155 51346 46728 71764 84167 (see N&O for full message)	MFSK	(Sealord)
XPA	30-10-2013	0620		12168	813 813 813 1 07203 00155 51346 46728 71764 84167 (see N&O for full message)	MFSK	(Sealord)
XPA	30-10-2013	0640		13368	813 813 813 1 07203 00155 51346 46728 71764 84167 (see N&O for full message)	MFSK	(Sealord)
XPA	5-11-2013	1900	Tue	8123	Possibly 2 messages, garbled, frequency noisy	MFSK-20/10Bd/USB	(MPJ)
XPA	14-11-2013	1900	Thu	8123	msg	MFSK	(HFD)
XPA	14-11-2013	1920	Thu	7523	msg	MFSK	(HFD)
XPA	14-11-2013	1940	Thu	6823	115588 115588 11 115588 115588 115588 11 115588 115588 115588 11 (see N&O 194 for full message)	MFSK	(AB/RH)
XPA	14-11-2013	1940	Thu	6823	msg	MFSK	(HFD)
XPA	23-11-2013	0740	Sat	14609	445566 445566 11 445566 445566 445566 11 445566 445566 445566 11 (see N&O 194 for full message)	MFSK	(AB/RH)
XPA2	19-11-2013	0840	Tue	17441	00687 00127 38886 83578 ... 87530 04442	MFSK	(Dan)

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XPA2	26-11-2013	0820	Tue	18741	msg	MFSK	(HFD)
XPA2	26-11-2013	0840	Tue	17441	msg	MFSK	(HFD)
XPA2	28-11-2013	0800	Thu	20841	msg	MFSK	(HFD)
XSL	18-11-2013	2116	Mon	4153	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	4231.5	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	6250	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	6417	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	6445	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	8313	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	8588	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	18-11-2013	2116	Mon	8703.5	Japanese Navy a.k.a. Slot machine	QPSK 1500bd	(AB)
XSL	29-11-2013	0740	Fri	8588	Slot Machine	QPSK 1500	(RH)

CONTRIBUTORS

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Dan	Daniel, Argentina	MPJ	Jim, SW England
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JPL-HK	JPL via GlobalTuners Hong Kong	WP3	Wolfgang Palmberger
JPL-Sib	JPL via remote rx Siberia		

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